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THOMPSON
WILDLAND MANAGEMENT

Environmental Management & Conservation Services
International Society of Arboriculture Certified Arborist # WE-7468A
Department of Pesticide Regulation Qualified Applicator Lic. #QL50949 B
Environmental & Arborist Assessments, Protection, Restoration, Monitoring & Reporting
Wildland Fire Property Protection, Fuel Reduction & Vegetation Management
Invasive Weed Control, and Habitat Restoration & Management
Soil Erosion & Sedimentation Control
Resource Ecologist

February 14, 2024

Messiah Residence
12 Arroyo Sequoia
Carmel, CA. 93923
APN: 239-091-021-000

Subject: 12 Arroyo Sequoia (Lot 96) Pre-construction Tree Impact Assessment

An arborist-conducted tree evaluation and pre-construction tree impact assessment was recently performed for the undeveloped parcel located at 12 Arroyo Sequoia (Lot 96, APN: 239-091-021) on the *Santa Lucia Preserve* in Carmel. This pre-construction assessment involved performing a ground level inspection of trees located on the subject property to assess general physiological health and structural condition; determine suitability for incorporating specific trees into the developed landscape based on tree health, condition, location and construction related impacts; provide recommendations for protecting trees and resources from property development activities to comply with *Monterey County Housing & Community Development Department-Planning Services* permit conditions, and to assist in preserving tree health and sustaining and supporting habitat. It should be noted that 3 oak trees are proposed for removal in preparation for home construction activities and retained trees will be adequately protected for the duration of property development operations.

The location of the trees proposed for removal, as well as the trees to be retained and protected are identified in the *Exhibit A: Tree Location Map* and project plans, and trees assessed and recorded during the field assessment are identified in the corresponding *Exhibit B: Tree Impact Assessment Spreadsheet*. Photographs depicting property features and trees addressed in this document are located at the end of the report (refer to attached photos, *Figures 1-19*). Findings and recommendations are provided herein.

I. PROPERTY DESCRIPTION & CHARACTERISTICS

This undeveloped parcel located at 12 Arroyo Sequoia (Lot 96) is a total of 4.2 acres in size with the Homeland being 1.8 acres. The 20,000 acre *Santa Lucia Preserve* is a WUI community that

supports a diverse mosaic of vegetation communities and habitat types including mixed oak woodlands, savannas, grasslands, coastal scrub, chaparral, coast redwood, riparian woodland and wetlands. This parcel is located in a region that is generally characterized by cool and wet winters and warm and dry summers.

Planned property development in the Homeland will include a permeable surfaced looped driveway to the homesite, a main house, garage and a detached ADU (refer to *Exhibit A* and the project site plans). Most of the proposed building and construction footprint on this oak savanna lot is located in relatively flat grassland clearings and canopy edge areas (understory vegetation is primarily composed of exotic annual grasses) with low to moderate tree density and canopy cover (refer to attached photos, *Figures 1-19*); however, there are a few areas of the Homeland (e.g., the proposed circular driveway and portions of the main house and ADU) where construction activities will occur within the canopy dripline and critical root zone of several of the oaks located around the proposed project site (refer to *Figures 2-11*). Given the proper implementation of grading activities, tree protection and root preservation best management practices (BMP's) provided in the tree protection section of this report, these trees are expected to tolerate construction impacts with minimal adverse affects.

The Homeland is a previously disturbed (e.g., past mowing and grazing activities) and relatively flat site consisting of oak savanna habitat that is dominated by well-spaced mature and senescing coast live oaks (*Quercus agrifolia*), oak groupings with greater tree density and canopy cover, and grassland clearings that are primarily composed of non-native annual grasses, which is characteristic of an oak savanna type habitat (refer to attached photos, *Figures 9-19*). A few valley oaks (*Quercus lobata*) and California bay laurel (*Umbellularia californica*) trees are also occurring in the Homeland. Several of the oaks are large with fairly broad spanning canopies (i.e., decurrent growth habits) and overall tree density and canopy cover in the Homeland ranges from low to moderate. Low growing vegetation in the grassland clearings and under the oaks in the Homeland is dominated by previously mowed exotic annual grasses, some native annual broadleaf forbs, herbaceous perennials, ferns, non-native invasive broadleaf weeds (e.g., Italian thistle [*Carduus pycnocephalus*], milk thistle [*Silybum marianum*] and poison hemlock [*Conium maculatum*], amongst others), and a few areas where native perennial grasses are present. Fairly common native understory broadleaf plants (i.e., non-grasses) observed in the Homeland include poison oak (*Toxicodendron diversilobum*), miner's lettuce (*Claytonia perfoliata*), Pacific sanicle (*Sanicula crassicaulis*), wood mint (*Blephilia ciliata*), coffeeberry (*Frangula californica*), Pacific hounds tongue (*Adelinia grandis*), gooseberry (*Ribes californicum*) and bracken fern (*Pteridium aquilinum*), amongst other natives.

In the surrounding Openlands, habitat primarily consist of a more densely vegetated mixed oak woodland vegetation community that is relatively flat to moderately sloped. The San Clemente Creek riparian woodland corridor is a short distance to the west. Tree species in the Openlands primarily consist of coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), California bay laurel (*Umbellularia californica*), big leaf maple (*Acer macrophyllum*), western sycamore (*Platanus racemosa*), Pacific madrone (*Arbutus menziesii*) and California buckeye (*Aesculus*

californica). Understory vegetation is primarily composed of a fairly densely vegetated assortment of native poison oak (*Toxicodendron diversilobum*), coffee berry (*Frangula californica*), coyote brush (*Baccharis pilularis*), common snowberry (*Symphoricarpos albus*), gooseberry (*Ribes californicum*) and the other native species listed in the previous paragraph, as well as an abundance of non-native annual grasses and broadleaf weeds.

Non-native annual grasses and habitat degrading invasive broadleaf weeds (e.g., Italian thistle, milk thistle and poison hemlock) are common and abundant in the Homeland and surrounding habitat areas. Non-native invasive weeds are problematic in that they degrade habitat, displace desirable native flora, decrease native plant diversity and increase combustible fuel loads. Invasive plants should be controlled and managed to improve habitat and reduce wildland fire hazards.

Dense understory vegetation is not occurring in the Homeland due to well-spaced trees and the previously mentioned understory plant species (i.e., primarily non-native annual grasses and broadleaf weeds) being mowed on a fairly routine basis (probably once every year or two), which is characteristic of many of the oak savanna Homeland lots in this area of the *Preserve* (refer to *Figures 9-19*). As noted earlier, the surrounding Openlands is dominated by more densely vegetated and slightly steeper mixed oak woodland and riparian woodland habitat.

In regards to proposed property development involved with the looped and circular driveway, the main house, garage and detached ADU, grading and construction activities will not be occurring on slopes greater than 30% grade. As previously stated, tree density and canopy cover in this oak savanna Homeland is low to moderate and a majority of the proposed building footprint is located in previously disturbed and impacted natural grassland clearings and canopy edge areas that are dominated by non-native annual grasses and broadleaf weeds. Consequently, the primary vegetation type that will be removed and disturbed during grading and construction operations are non-native annual grasses, common forbs and invasive broadleaf weeds.

As noted earlier and per the design plans, there are a few areas where grading and construction activities will be taking place in fairly close proximity (i.e., within the canopy dripline and critical root zone) to several larger oaks, particularly some of the trees near the looped driveway and the main house (refer to *Figures 2-11*, the project site plans, the *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*). Given the proper implementation of grading activities and tree and root preservation measures (refer to the construction tree protection recommendations provided in this report), construction related impacts to the above mentioned trees is expected to be minimal to moderate and not harmful or detrimental to tree health. In a few other areas of the construction site where minor to moderate canopy dripline and critical root zone encroachment will be occurring near the main house, garage and detached ADU, impacts to trees is also expected to be minimal to moderate.

The growth habit and form of the oaks on the lot is decurrent (i.e., generally rounded and broad spanning canopies). Crown class ranges from intermediate to co-dominant, with a majority of

oaks having a co-dominant crown class. Mature and overly-mature and senescing oaks are the most common age class of trees located in this oak savanna and woodland parcel; however, younger trees are also occurring on the lot, but at fairly low levels. Where possible, young and immature oak seedlings and saplings observed should be preserved and protected from property development and fuel management activities to assist in sustaining and supporting the health and character of oak savanna and woodland habitat.

In regards to woodland health, harmful biotic disorders (e.g., pathogens, disease and/or insect pests) appear to be absent in levels that are detrimental to the health and viability of trees and woodland habitat.

At the time of the property visit and assessment, special status plant and animal species, sensitive habitat (the exception being nearby San Clemente Creek that will not be impacted by property development activities), and actively nesting birds that have protection status were not observed in or around the Homeland site. In regards to nesting birds, an additional nesting bird assessment should be conducted if any tree work (e.g., removal and/or pruning operations) occurs during the nesting season, which in Monterey County may begin as early as February and continue through August.

In regards to tree removal, a total of 3 of the 37 trees assessed and recorded (identified as *Tree#s 421, 426 & 427*) are proposed for removal in preparation for property development activities (refer to *Figures 15-19*, the corresponding *Exhibit A: Tree Location Map*, and the *Exhibit B: Tree Impact Assessment Spreadsheet*). The remaining oaks on the lot will be retained and protected with the necessary tree preservation measures for the duration of the property development project (refer to tree protection measures provided later in this report). It should be noted there are numerous additional trees in the surrounding more densely wooded and vegetated mixed oak woodlands (i.e., Openlands) that will not be impacted or affected by property development activities.

II. METHODOLOGY

For this report, a ground level visual assessment was recently conducted for native specie oak trees located in proximity to the proposed construction site. In regards to inspecting trees, no aerial (climbing) inspections, woody tissue testing and/or root excavations were performed or requested as part of this evaluation.

Per *Monterey County Housing & Community Development Department-Planning Services* tree removal permit requirements, native specie trees 6 inches DBH (diameter at breast height) or larger at 48 inches above grade are required to be recorded for removal and will need to be replaced if tree removal is approved. 6 to 23 inch DBH trees are replaced at a 3:1 replacement ratio and 24 inch DBH or larger trees (i.e., landmark status trees) are replaced at a 5:1 ratio.

Trees proposed for removal or that have the potential of being impacted by construction

activities were documented and recorded during a pre-construction tree assessment (refer to the *Exhibit A: Tree Location Map* and the *Exhibit B: Tree Impact Assessment Spreadsheet*). During the Lot 96 tree assessment 37 trees (all oaks except for 1 California bay laurel tree) were documented, recorded and assigned numbered metal *tag#s 400-436*. These trees are referred to and identified as *Tree#s 400-436* in the report, as well as in *Exhibits A & B*. Three (3) of these trees (3 coast live oaks [identified as *Tree#s 421, 426 & 427*]) are proposed for removal in preparation for property development operations (refer to *Figures 15-19*). The remaining 34 trees that were recorded and documented will be retained and protected during project operations and are generally expected to have minimal to moderate impacts from property development activities.

Recommendations are based on the overall general health, vigor and condition of trees and habitat; the impact that property development activities may have on trees and natural resources; the hazard level trees present to proposed occupied structures and/or areas with human activity; and the impacts that tree management and/or removal activities may have on natural resources, habitat and nearby healthy trees.

In regards to exhibits and attachments included in this report, *Exhibit A* is a property map and project site plan that shows the location of tagged and recorded trees, as well as the general location of tree protection fencing in relation to proposed structures. The corresponding *Exhibit B: Tree Impact Assessment Spreadsheet* identifies trees located in the project area that have the potential of being affected by proposed construction activities. The *Exhibit B* spreadsheet provides general tree information and characteristics, such as tag number, species, diameter (DBH), general physiological health and structural condition (i.e., Dead, Poor, Fair or Good), construction impacts (i.e., Low, Moderate, High or Removal) and the recommended root protection zone. Photographs depicting property features, characteristics and trees addressed in this document are located at the end of the report (refer to attached photos, *Figures 1-19*).

III. TREES PROPOSED FOR REMOVAL & CONSTRUCTION IMPACTS

Thirty-seven (37) six inch DBH or larger native specie trees (35 coast live oak, 1 valley oak and 1 California bay laurel) were documented and evaluated as part of a pre-construction tree impact assessment (refer to the *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*). As previously noted, tree density and canopy cover in most of the Homeland area ranges from low to moderate, which is characteristic of an oak savanna type vegetation community (refer to *Figures 1-19*). Most of the proposed building and construction footprint is located in previously mowed grassland clearings and canopy edge areas with lower tree density and canopy cover. Given the proper implementation of tree protection and preservation best management practices (BMP's), impacts to trees from property development activities is expected to be minimal and insignificant.

These 37 trees that were documented and recorded were assigned *tag#s 400-436* in the field and are also referred to in the report as *Tree#s 400-436*. Per the design plans, 3 coast live oaks

identified as *Tree#s 421, 426 & 427* (refer to *Figures 15-19*), are proposed for removal due to construction related impacts (*Tree#s 421 & 426* are located directly adjacent to the proposed main house and *Tree#427* is located within the building footprint). These 3 oaks planned for removal range from poor to good overall health and condition.

The 34 remaining trees that will be retained and protected (i.e., 32 coast live oaks, 1 valley oak and 1 California bay laurel) also range from poor to good health and condition, with most of the oaks being in fair physiological health and poor to fair structural condition. Several oaks are in poor and declining structural condition primarily due to decay features and poor canopy balance and symmetry, which is a common characteristic of aging oak trees. The retained and protected oaks, particularly *Tree#s 408-414, 416 & 428-430* that are located in fairly close proximity to the proposed driveway and homesite (i.e., the permeable surfaced looped driveway and grading disturbance related to home construction is occurring within the canopy dripline [Refer to *Figures 2-11*, the project site plans, the *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*]) have the potential of being impacted by project operations due to the proximity of grading and construction activities to the subject trees (i.e., the canopy dripline and critical root zone [CRZ] areas). Potential impacts are likely to be insignificant and trees are expected to tolerate and withstand construction activities with minimal adverse affects, especially if grading activities, root preservation and tree protection BMP's are properly implemented. If these trees are effectively cared for and protected during construction activities it is very likely that they will continue to be viable, healthy and of ecological value and benefit to the property for many years to come following the completion of property development activities.

A pre-construction site analysis and review of the construction site plans has determined that construction related impacts to most of the 34 retained and protected oaks located in the vicinity of proposed property development activities is expected to be low, low to moderate (i.e., *Tree#s 401, 403, 405, 420, 431 & 433-436*) or moderate impacts (i.e., *Tree#s 408-414, 416 & 428-430*; refer to the *Exhibit B: Tree Impact Assessment Spreadsheet*). The oaks that have the greatest potential of being affected by construction activities are the above mentioned large and senescing oaks identified as *Tree#s 408-414, 416 & 428-430* that are located in fairly close proximity to the proposed permeable surfaced circular driveway and main house site (refer to *Figures 2-11*). A majority of the looped driveway and portions of the main house will involve grading within the more sensitive canopy dripline and CRZ area of these trees. In regards to the looped driveway that passes through the CRZ of the aging oaks (most of which are large trees) identified as *Tree#s 408-414* (refer to *Figures 2-6 & 8*), proposed driveway construction will be at natural grade or slightly elevated grade, which will assist in preventing and minimizing impacts to primary lateral roots that will be important to protecting and preserving tree health. Other than the oaks mentioned above that could have moderate or potentially significant impacts if large roots are encountered and damaged during grading operations, which will be avoided, the remaining oaks in the vicinity of the project site are expected to have minimal impacts from construction activities. Additionally, it may be necessary to remove a few sizable limbs to provide the necessary clearance for construction activities, but this pruning should not have a significant

adverse impact to the health of the trees, particularly if limb removal is properly implemented during the fall to early winter season.

The 3 oak trees proposed for removal (identified by *Tree & tag#s 421, 426 & 427*) are as follows (refer to attached photos, *Figures 15-19* and the corresponding *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*):

- 1) *Tree#421* is a 34 inch DBH coast live oak that is located directly adjacent to the building footprint for the main house and will need to be removed due to construction impacts (refer to *Figures 15 & 16*). This tree is in fair physiological health and poor structural condition. Structural deficiencies include a significant natural lean, poor canopy balance and symmetry, a co-dominant stem attachment in the upper stem and visible decay features. Plant 5 replacement trees to support and sustain woodland health and character and to satisfy County tree removal permit requirements.
- 2) *Tree#426* is a 19 inch DBH coast live oak that is also located directly adjacent to the building footprint for the main house and will need to be removed due to construction impacts (refer to *Figures 17-19*). This oak tree is generally in fair physiological health and structural condition with no significant health disorders and/or structural defects observed. If there is interest, this tree may be a good candidate for transplanting using proper equipment, such as a tree spade. Plant 3 replacement oak trees to support and sustain woodland health and character and to satisfy County tree removal permit requirements.
- 3) *Tree#427* is a 18 inch DBH coast live oak that is located within the construction footprint for the main house (refer to *Figures 17-19*). This oak tree is generally in fair physiological health and structural condition with no significant health disorders and/or structural defects observed. Plant 3 replacement trees to support and sustain woodland health and character and to satisfy County tree removal permit requirements.

Grading and construction related disturbance should be avoided within a radius that is a minimum of five times (5X) the diameter (DBH) of the subject trees, which is the most sensitive portion of a tree's critical root zone (CRZ) area. The CRZ is generally defined as the area within the canopy dripline (i.e., the outer most portion of the canopy dripline 360 degrees around the tree) that contains the most sensitive and important roots for supporting and sustaining the health, viability and structural integrity of trees. **It should be noted that 5X the trunk diameter is the minimum CRZ area that must be protected and, where possible, root zone disturbance should be avoided within the entire canopy dripline** and even expanded to the area beyond the canopy dripline. Significant root system impacts or root loss will be avoided and is not expected to occur in levels that is detrimental to the health and welfare of retained and protected trees. **Where possible, tree protection fencing will be installed along the outer portion of the canopy dripline (i.e., the CRZ area) or beyond the canopy dripline of trees located within and/or adjacent to the project site in order to avoid impacting critical roots.** The area around trees that is protected with exclusionary fencing during grading and construction operations is commonly referred to as the *Tree Protection Zone (TPZ)* and ideally the CRZ and canopy dripline should be well within the fenced TPZ.

Coast live oaks can be fairly tolerant of low levels of root system impacts; however, they are generally less tolerant to significant increases (i.e., introduction of fill material) or decreases (i.e., cut slopes or trenching resulting in potential root loss) in natural grade within the CRZ area. Where possible, avoid altering the natural grade within the CRZ area of trees to reduce the likelihood of causing stress, decline or mortality. Lowering natural grade can result in significant root damage and raising the grade (i.e., introducing fill material, particularly around the lower trunk and root crown) can lead to trunk and root decay disorders that are detrimental to the health and structural integrity of trees. Where possible, root loss and root system impacts should be avoided and minimized to the greatest extent possible, and this important factor should be considered when developing a construction design plan. It should be noted that root loss or root system impacts does not always result in an immediate or significant decline in tree health, but instead often occurs slowly and gradually over a period of several years or decades. Per the site assessment and analysis of the current development design plan, it appears that retained trees located in the vicinity of proposed construction activities will likely tolerate construction impacts with minimal adverse affects given proper tree protection, and are suitable for being retained, protected and preserved.

A point to consider is that, generally speaking, oak trees should be no closer than a 10 to 15 foot distance from proposed new structures, not only for preserving and protecting critical roots (a 10 to 15 foot distance in most cases is actually too close for larger and aging oaks), but also in the interest of reducing combustible fuel loads near structures and abating wildland fire hazard concerns.

During project operations the trees on the lot will be routinely monitored and adequately protected, and in the event that large primary roots are encountered the project arborist will be notified and consulted to assist in providing guidance and recommendations to minimize impacts to protected trees. If trees exhibit any signs or symptoms of stress and decline due to possible construction related impacts or any other factors (e.g., biotic and/or abiotic disorders) specific treatments can be performed (e.g., supplemental deep watering, radial or vertical mulching, growth regulator treatments, among others) to assist in mitigating adverse impacts and to aid in the recovery of impacted trees, but none of these treatments are anticipated to be necessary.

Landscaping activities associated with property development will be designed and implemented in manner that will avoid or minimize impacts to nearby trees. For example, landscaping should be avoided or limited within the critical root zone area (i.e., canopy dripline) of trees, with minimal soil disturbance, grading, irrigation, planting and introduction of soil or other landscaping materials. Landscaping plants should be drought tolerant and lower combustibility vegetation that is appropriate to oak savanna and woodland habitat.

Per *Monterey County Housing & Community Development Department-Planning Services* tree preservation ordinances and resource protection best management practices (BMP's), other than the 3 oaks proposed for removal, the trees on the property will be retained and protected from construction activities for the duration of the property development project (refer to tree

protection BMP's provided in this report, as well as the *Exhibit A: Tree Location Map & Tree Protection Plan*). Tree and resource protection measures will assist in preserving and protecting ecological resources and minimizing impacts to trees and oak savanna and woodland habitat.

Additionally, several oak trees that are located in relatively close proximity to the proposed project site will be pruned to maintain and preserve tree health, provide adequate clearance around structures, improve aesthetics, reduce combustible fuel loads (i.e., ladder fuels) and improve defensible space for wildland fire protection. Pruning operations should occur during the proper time of year (preferably fall through early winter) and will utilize proper pruning BMP's to minimize impacts to trees.

IV. RECOMMENDATIONS

A. Tree Removal, Replacement & Management:

For the reasons provided in this report, permission is being requested to remove a total of 3 coast live oak trees (identified as *Tree#s 421, 426 & 427*) in preparation for proposed property development activities (refer to *Figures 15-19* and the corresponding *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*). In regards to tree replacement, 11 coast live oak mitigation replacement trees will need to be planted in the Homeland and survive a 5-year monitoring period to comply with Monterey County tree removal permit conditions for the 3 oaks proposed for removal.

As previously stated, per *Monterey County Housing & Community Development Department-Planning Services* tree preservation ordinances and resource protection BMP's, the remaining trees on the lot will be retained and protected from construction activities for the duration of the property development project (refer to tree protection BMP's provided in this report). Tree and resource protection measures will assist in protecting trees and minimizing harmful impacts to trees, habitat and other ecological resources.

Closely monitor and inspect the retained and protected oaks for the duration of the project, particular the oaks that are located in closer proximity to proposed construction activities (i.e., *Tree#s 408-414, 416 & 428-430*). Construction related impacts are expected to be insignificant, but the proximity to grading and construction activities warrants frequent monitoring and inspections to assist in minimizing impacts and to ensure that tree protection measures are adequate, properly maintained and functioning effectively.

As mentioned above and per the design plans, the retained and protected oaks that have the greatest potential of being impacted by property development activities are *Tree#s 408-414, 416 & 428-430* (refer to *Figures 2-11*, the *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*). Per the plans, the remaining oaks that were documented and recorded during the tree impact assessment are expected to have minimal and insignificant impacts from proposed grading and construction activities.

Where possible, keep grading activities and significant soil disturbance to a minimum within the canopy dripline and CRZ of nearby oaks. Based on the DBH of the trees and experience of where the most critical and significant roots are likely to occur within the CRZ area, grading activities and soil disturbance should ideally be avoided within the *Recommended Root Protection Zones* provided in the corresponding *Exhibit B* spreadsheet.

The retained oaks, particularly the large and senescing landmark oaks, such as *Tree#s 410, 412-415, 428 & 430*, are a very important aesthetic and conservation value to the property and measures should be taken to avoid and minimize impacts to the subject trees. It should be noted that the project arborist should be notified prior to any grading activities occurring around the subject trees, and shall be present at the site if it is necessary to grade any closer than the distances provided in the *Recommended Root Protection Zones* (refer to the *Exhibit B* spreadsheet) or if large diameter roots (i.e., greater than 2-inch diameter) are encountered or are anticipated to be encountered.

Natural recruitment and regeneration of oaks is occurring on the subject lot, but overall appears to be deficient in the Homeland. Consequently, at some point additional oak planting is advised to assist in supporting and sustaining the health and character of this oak savanna and woodland environment, as well as to comply with *Monterey County Housing & Community Development Department-Planning Services* tree removal permit conditions. As previously suggested, healthy young oak seedlings and saplings observed in the Homeland should be preserved and protected. If there are naturally occurring oak seedlings and/or saplings observed in the Homeland, these seedlings or saplings should be protected from construction activities or, alternatively, saved and relocated to a safe and suitable area on the lot and cared for until they are properly established.

As stated earlier in the report, several oak trees located in the Homeland that are in relatively close proximity to the proposed project site will be pruned to maintain and preserve tree health, improve aesthetics, provide adequate clearance around proposed structures, reduce combustible fuel loads (i.e., ladder fuels) and improve defensible space for wildland fire protection. Some of the pruning that will be necessary to provide adequate clearance from construction activities and future structures may require a County permit due to the relatively large size of a few oak limbs that may need to be removed. This proposed pruning is not expected to have significant adverse impacts to tree health. Pruning operations should occur during the proper time of year (preferably fall through early winter) and will utilize proper pruning BMP's to minimize impacts to trees.

Tree pruning operations should be avoided during the bird nesting season, which in Monterey County may begin as early as February and continue through August. If tree work is necessary during this time period a nesting assessment is advised to determine if any nesting birds are present. A recent tree assessment and site inspection determined that actively nesting birds are presently not occurring within or directly adjacent to the property development site; however

depending on when construction activities begin (i.e., February-August) it may be necessary to perform an additional assessment.

B. Construction Tree Protection Measures:

Per *Monterey County Housing & Community Development Department-Planning Services* requirements and resource preservation BMP's, the following tree and resource protection measures shall be implemented for this home development project located at 12 Arroyo Sequoia (Lot 96). Not all of these tree protection measures may be necessary or applicable to this specific project, but may come in useful at some point during property development operations and should be provided in case they are needed. The proper implementation of tree and resource preservation BMP's and regular construction site monitoring will assist in protecting and preserving the health and welfare of trees, habitat and surrounding ecological resources. The location of tree protection measures will be determined on-site by the project arborist and project design team, and tree and resource preservation measures will be regularly inspected and properly maintained for the duration of the project to ensure they are functioning effectively:

1) Prior to commencing with grading and construction activities install high visibility exclusionary fencing that clearly defines the work area, limits unnecessary disturbance to surrounding areas, and protects the critical root zone (i.e., CRZ area defined by the outermost portion of the canopy dripline, 360 degrees around the tree) of individual trees and tree groupings. For protecting the canopy dripline and CRZ areas use a more durable and heavier duty orange exclusionary fencing (e.g., *Resinet Heavy Duty Square Mesh Access Control Barrier Fence*) anchored in with steel T-posts, or consideration should be given to using a much stronger and more durable chain link fencing, particularly around the important landmark status heritage oaks that are located in fairly close proximity to proposed construction activities (refer to the *Exhibit A: Tree Location Map & Tree Protection Plan* that shows the location of tree protection fencing). **Where possible, tree protection fencing will be installed along the outer portion of the canopy dripline (i.e., the CRZ area) or beyond the canopy dripline of trees located within and/or adjacent to the project site to avoid impacting critical roots.** The area that is protected by tree protection fencing is identified as the *Tree Protection Zone (TPZ)*, which ideally should include the entire canopy dripline and CRZ area. Perform necessary repairs, modifications and maintenance to tree protection measures on a as needed basis for the duration of the project.

2) Install appropriate sedimentation control measures (e.g., silt fence) along downslope perimeter of construction site, and if necessary apply soil stabilization and source control measures (e.g., rice straw mulch, erosion control blankets, all-weather surfaces) to exposed soil surfaces to prevent erosion problems and sediment runoff during rain events. Perform routine monitoring, as well as necessary maintenance and improvements to ensure that erosion & sedimentation control measures are functioning effectively. It should be noted that erosion problems and sediment deposition around trees can adversely affect tree health and stability.

3) If it's necessary to perform grading activities within the canopy dripline and critical root zone (CRZ) area of trees the following practices should be implemented: 1) Try to maintain natural grade as much as possible; 2) Where feasible use permeable surface materials at final grade; and 3) Avoid cut (i.e., lowering grade) and fill (i.e., raising grade with fill material) operations (particularly lowering grade) within the CRZ that could result in significant root loss or damage to large primary roots that are important to supporting and sustaining tree health and stability.

4) If it is necessary to perform grading and construction activities within 5 feet of trees install trunk and stem protection measures (e.g., 2x4 lumber forming protective barrier around circumference of trunk and lower stem of tree). Tree protection measures should be securely installed to trees with rope and high visibility exclusionary fencing. If it is necessary to perform any pruning use proper tree pruning practices to minimize impacts and maximize wound healing.

5) If it is necessary to temporarily store construction materials or equipment within the canopy dripline (i.e., CRZ) of nearby oak trees (which will be avoided and should not be necessary), apply 2 to 4 inches of clean and properly sourced woodchip mulch to limit soil disturbance and prevent soil compaction within the critical root zone area. In some cases a deeper and more protective mulch layer may be necessary.

6) Where possible, avoid damaging or cutting roots located within the critical root zone (i.e., canopy dripline) of trees, especially roots that are 2 inches diameter or larger, and to the extent possible avoid grading or significant soil disturbance within a radius that is a minimum five times (5X) the diameter (DBH) of a subject tree, which is the most sensitive portion of a tree's critical root zone (CRZ) area. It should be noted that 5X the trunk diameter is the minimum CRZ area that must be protected and, where possible, root zone disturbance should ideally be avoided within the entire canopy dripline (i.e., the outer most portion of the canopy dripline 360 degrees around the tree) and even expanded to the area beyond the canopy dripline and primary root zone. Construction footings should be designed and excavation activities performed in a manner to minimize impacts to primary roots, or alternative foundation designs (e.g., pier and grade beam) that are less impactful to critical root systems should be considered. If significant roots are encountered efforts should be made to carefully excavate (e.g., tunnel or dig) under or around primary lateral roots. Grading or trenching operations that may occur within the critical root zone of retained trees should be performed under the guidance and monitoring of the project arborist; however, no such activities are planned or anticipated for this project. Tree roots severed or significantly damaged during grading and excavating operations should be cleanly cut and promptly covered with moist burlap fabric or equivalent until roots are permanently covered with backfill material or until the exposed grading cut and soil profile is permanently stabilized and protected. If burlap covered cut roots are exposed to the outside environment for an extended period of time a project attendant shall be assigned the task of regularly wetting burlap covered roots to prevent root desiccation. Additionally, in the absence of rain during the wet season it may be necessary to perform supplemental watering (i.e., regular deep irrigating throughout the remaining portions of the CRZ) to construction impacted trees. Frequency, quantity and duration of supplemental watering should be determined by the project arborist.

7) As previously noted, coast live oaks can be fairly tolerant of low to moderate levels of root system impacts; however, they are generally less tolerant to increases (i.e., introduction of fill material) or decreases (i.e., cut slopes) in natural grade. Where possible, avoid altering the natural grade (particularly lowering grade) within the critical root zone to reduce the likelihood of causing root loss, stress, decline and/or mortality. Lowering natural grade can result in significant root loss or damage and raising the grade (i.e., introducing fill material, particularly around the lower trunk and root crown) can lead to trunk and root decay disorders that are detrimental to the health and structural integrity of trees. Where possible, root loss and root system impacts should be avoided and minimized to the greatest extent possible, and this important factor should be considered when developing a construction design plan. It should be noted that root loss or root system impacts does not always result in an immediate or significant decline in tree health, but instead often occurs slowly and gradually over a period of several years or decades. Per the site assessment and analysis of the current development plans, it appears that trees in the vicinity of proposed construction activities will likely tolerate construction impacts with minimal or insignificant adverse affects and are suitable for being retained, protected and preserved..

8) Avoid storing construction tools, materials and equipment within the critical root zone (i.e., canopy dripline) of trees, and do not wash out or dispose of excess materials (e.g., paint, plaster, concrete, or other potentially harmful substances) within critical root zone areas. As previously noted, if it is unavoidable and necessary to temporarily store or stockpile materials and equipment within the CRZ of trees, apply 2 to 4 inches of clean and properly sourced woodchip mulch to prevent soil compaction and root zone disturbance.

9) If tree pruning is necessary it is important to utilize proper pruning BMP's that will assist in minimizing harmful impacts to trees. In most cases, tree pruning should ideally be performed during the fall through early winter months when the trees are at a lower level of physiological activity, the exception being deadwood removal or minor pruning, which can occur during any time of year. A general principle to follow is that it is important to make proper pruning cuts, keeping them as small as possible while removing as few living branches as necessary to achieve the objective. Large pruning wounds often do not completely heal over with wound wood callus tissue, which creates a permanently exposed entry point for decay, disease and insect pests. Excessive pruning can stress, injure and harm trees by depleting energy reserves and reducing food making processes (i.e., photosynthesis), which can compromise a trees ability to perform essential physiological functions and to recover and replenish essential reserves during periods of stress (e.g. root disturbance and drought conditions). As noted above, excessive pruning can create an abundance of exposed wounds providing entry points for potentially harmful biotic disorders (e.g., disease, decay and/or insect pests) that can adversely affect the health and structural integrity of trees. It should be noted that pruning involving the removal of 30% or more of living canopy material requires a County permit. Additional pruning BMP's and guidelines are available upon request.

10) The primary objective of pruning operations should be as follows: To remove dead and unhealthy limbs and branches (i.e., deadwood removal); improve canopy balance and symmetry and maintain natural form; thin out overly dense and heavy portions of the canopy; and, if necessary, perform targeted and selective weight reduction pruning of the canopy and large limbs (i.e., end weight reduction pruning) to assist in preventing significant structural failures that could be detrimental to tree health and potentially hazardous to property and areas with human activity. As suggested in the previous sentence, perform necessary pruning to reduce and mitigate hazard concerns to occupied structures and areas with human activity; and perform necessary pruning to reduce wildland fire hazards and combustible fuel loads, and to improve property protection and defensible space around structures.

11) Perform pre-construction meeting with contractor to ensure that tree and resource protection measures are properly installed and located. Additionally, perform regular construction site inspections for the duration of the project to monitor the condition of tree and resource protection measures, and to determine if any repairs, adjustments or modifications are necessary. Trees impacted by site development should be periodically monitored and assessed during and following the project to determine if any tree care and management actions are necessary, and to make certain trees do not present a hazard to property and/or nearby structures.

C. Tree Repair & Replacement:

Per tree care and preservation BMP's, if any trees are damaged during construction operations they should be promptly repaired and/or treated per arborist specifications. Remedial or mitigation treatments may vary and will depend largely on the damage or injury sustained, as well as the condition of a specific tree at the time of injury. As previously noted, trees impacted by project operations should be periodically monitored and assessed by the project arborist during and following the project to determine if any tree care and management actions are necessary that will assist in preserving and improving tree health and preventing tree hazards.

V. SUMMARY & CONCLUSION

In conclusion, a total of 37 oak trees identified as *Tree#s 400-436* were documented and recorded on the property located at 12 Arroyo Sequoia (Lot 96) on the *Santa Lucia Preserve* in preparation for proposed property development activities (refer to the corresponding *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*). Per the current construction design plans for this undeveloped lot, a total of 3 native specie coast live oaks identified as *Tree#s 421, 426 & 427* are proposed for removal in preparation for home construction operations. Additionally, tree and resource protection measures shall be installed prior to construction activities commencing and properly monitored and maintained for the duration of the project. Given the proper implementation of grading activities, as well as the tree care and protection recommendations provided in this report, the retained trees in the Homeland are not expected to be significantly impacted or adversely affected by property development activities.

As discussed in the report, the oaks that have the greatest potential of being impacted by construction and grading activities are *Tree#s 408-414, 416 & 428-430*. Where possible, keep grading activities and significant soil disturbance to a minimum within the canopy dripline and critical root zone (CRZ) of the subject oaks. The CRZ area typically extends beyond the canopy dripline, especially in naturally growing trees. The minimum CRZ area where impacts should be avoided is the distance from the trunk in feet that is 5X the DBH of a tree, but this is the minimum area that should be protected and, where possible, the area with no or minimal construction related disturbance should extend to the canopy dripline (i.e., the portion of the canopy edge furthest away from the trunk, with this radius maintained 360 degrees around the tree) or beyond. However, given factors such as spacial limitations and design and layout considerations, it is often necessary and unavoidable for property development activities to encroach within the canopy dripline and CRZ areas of some nearby trees, which should be acceptable if certain precautions, measures and practices (e.g., the looped driveway will either be at natural grade or grade elevated to assist in minimizing root system impacts) provided in this report are properly implemented (refer to the construction tree protection measures section).

Based on the DBH and overall size of the subject trees, as well as experience of where the most critical and significant roots are likely to occur within the CRZ, grading should be avoided within the radial distance of the trunk that is provided in the *Recommended Root Protection Zone* column of the *Exhibit B: Tree Impact Assessment Spreadsheet*. Generally speaking, oak trees should be no closer than a 10 to 15 foot distance from proposed structures, not only for preserving and protecting critical roots (a 10 to 15 foot distance in most cases is actually too close for larger and aging oaks), but also in the interest of reducing combustible fuel loads near structures and abating wildland fire hazard concerns.

At this time a project site plan identifying the location of other infrastructure and grading activities that has the potential of impacting the root systems of nearby trees, such as underground drainage systems, utilities, septic systems, dispersion trenches, landscaping details, retaining walls, additional cut and fill operations, and any other significant altering of natural grade and drainage patterns, has not yet been reviewed by the project arborist. It should be noted that some of this development may not be proposed or needed for this project. When these plans and details associated with property development become available, the project arborist should review and evaluate to ensure that impacts will be minimal and not harmful to tree health.

Within the canopy dripline and CRZ of oaks, particularly the large focal point trees on the lot (i.e., *Tree#s 410, 412-415, 428 & 430*), soil disturbance and grading should be avoided and kept to a minimum, which includes landscaping, hardscaping and any other activities that alter soil conditions, natural grade and drainage patterns that could adversely affect tree health. The oaks on the property are a very important aesthetic and conservation value to the property and measures should be taken to avoid and minimize impacts to the subject trees. The project arborist should be notified and consulted prior to any grading activities occurring within the canopy dripline of the trees, and shall be present at the site if it is necessary to grade any closer than the distances provided in the *Recommended Root Protection Zone* column of the *Exhibit B*

spreadsheet, or if large diameter roots (i.e., greater than 2 inch diameter) are encountered or are expected to be encountered. In the CRZ areas where significant roots are likely to be encountered light grading and excavating via hand digging, air spading and/or light mechanized equipment is advised to assist in preventing severe ripping and damage to primary lateral roots that is often associated with traditional grading activities using heavy equipment.

Some of the oak pruning that will be necessary in preparation for property development activities may require a County permit due to the relatively large size of a few oak limbs that may need to be removed. Impacts from proposed pruning is not expected to significant or harmful to tree health, particularly if proper pruning cuts are made and pruning occurs in the fall or early winter season to assist in minimizing impacts to trees.

Per the construction design plans and a recent tree evaluation, it appears that oak trees located in the vicinity of proposed construction activities will likely tolerate impacts related to grading and construction activities with minimal to moderate impacts. To reduce the likelihood of trees being harmed and negatively affected the trees should be regularly monitored and inspected for the duration of the property development project. Additionally, it is advised that construction impacted trees be occasionally inspected and evaluated following the completion of project operations, due to tree disorders and declining health and condition from construction related impacts often occurring slowly and gradually over a period of several years following the completion of construction activities.

Per *Santa Lucia Preserve DRB* requirements and *Monterey County Housing & Community Development Department-Planning Services* permit conditions, tree and resource protection measures shall be properly installed prior to construction activities commencing and adequately monitored and maintained for the duration of the project. The proper implementation of tree and resource protection BMP's provided in this report will assist in minimizing impacts to trees and oak savanna habitat, as well as complying with the project's conditions of approval.

Additionally, in the interest of complying with *Monterey County Housing & Community Development Department-Planning Services* tree removal permit conditions and preserving and sustaining the health and character of oak savanna and woodland habitat, eleven (11) 5 to 15-gallon container size coast live oak (*Quercus agrifolia*) replacement trees shall be planted in suitable and appropriate locations on the Lot 96 Homeland and survive a five-year monitoring period.

Best regards,

Rob Thompson
ISA Certified Arborist # WE-7468A
Resource Ecologist

February 14, 2024
Date

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Figure 1. Entrance to Lot 96 off of Arroyo Sequoia.



Figure 2. Photo taken from existing paved driveway heading into Homeland past several large and aging oaks. Trees will be retained and protected.



Figure 3. View from Homeland entrance looking back towards existing paved driveway. Oaks in photo are Tree#s 400-405.



Figure 4. View of proposed looped driveway area entering Homeland. Oaks visible in photo are Tree# 403 (left foreground) and Tree#s 408-412 in center background. Trees will be retained and protected.



Figure 5. Another view of oak grouping (right to left Tree#s 408-412) that will be located in center of proposed circular permeable surfaced driveway. Trees will be retained and protected.



Figure 6. View of several of the above mentioned large and aging oaks in center of proposed looped driveway looking back towards existing paved driveway and Arroyo Sequoia.



Figure 7. Entering oak savanna Homeland looking towards proposed homesite. Tree#s 403 (foreground), 413 & 414 are primary oaks seen in photos. Trees will be retained and protected.



Figure 8. View from Homesite area looking towards more densely wooded looped driveway entrance. Trees will be retained and protected.



Figure 9. Entering proposed driveway parking area and homesite in oak savanna. Tree#s 429 & 430 are right of center in photo.



Figure 10. Homesite is located in natural clearing in oak savanna.



Figure 11. Oaks identified as Tree#s 428-430 are visible to the left of proposed homesite. Trees will be retained and protected.



Figure 12. Oak savanna Homeland looking towards ADU site in center background.



Figure 13. Close view of proposed ADU site. Trees will be retained and protected.



Figure 14. Dead valley oak snag to the right (next to Tree#435 to the left) is not a hazard concern and should be retained for habitat.

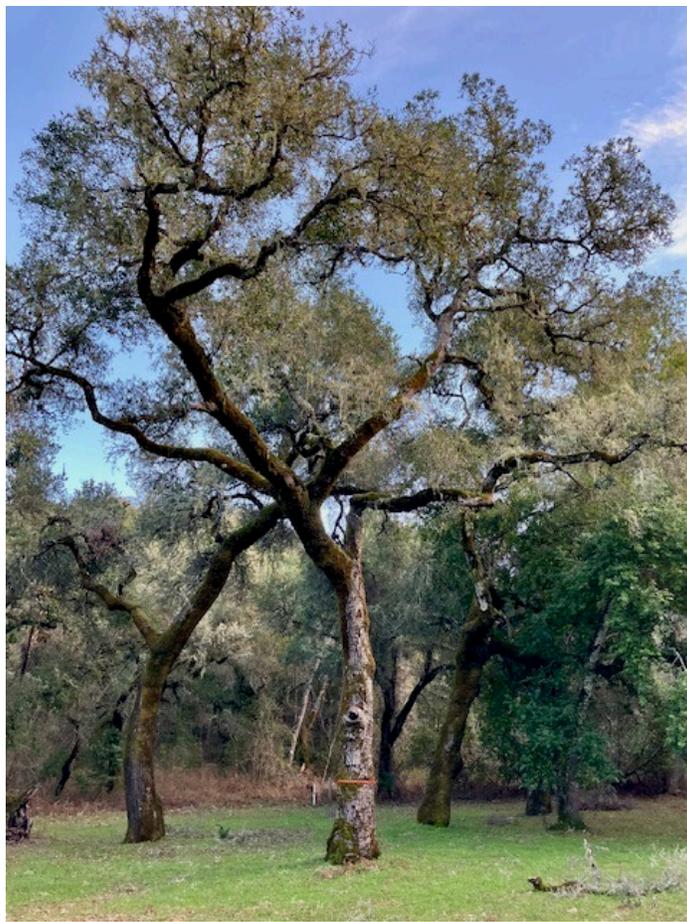


Figure 15. The declining coast live oak identified as Tree#421 is proposed for removal due to construction impacts.

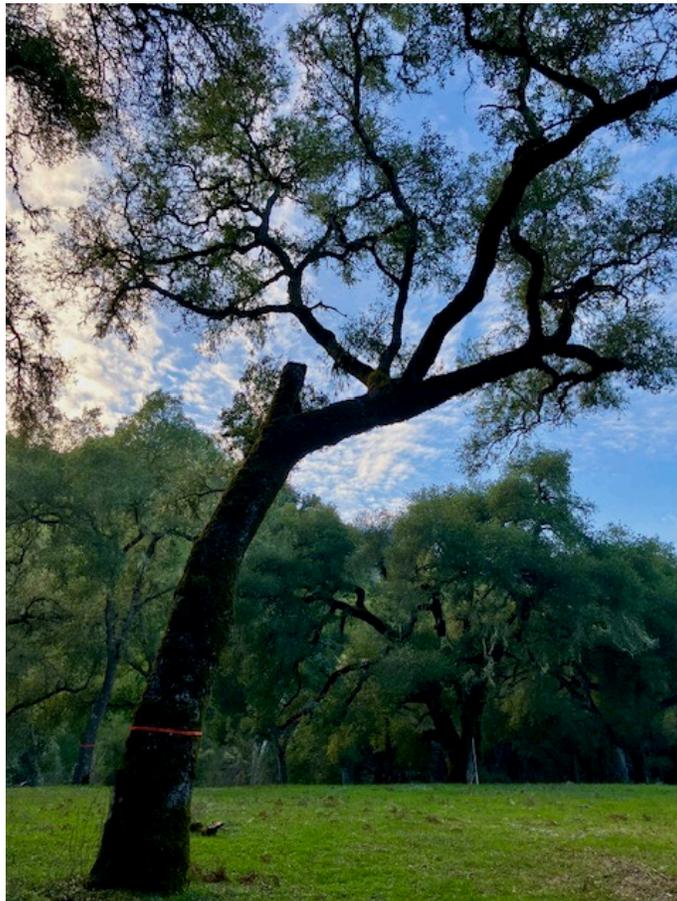


Figure 16. Another view of the declining and leaning Tree#421 that has visible decay and poor balance and symmetry.



Figure 17. Two coast live oaks identified as Tree#s 426 (to the left marked with orange flagging tape) and #427 (to the right marked with orange tape) are proposed for removal due to construction impacts.



Figure 18. Tree#426 is right of center in foreground and #427 is in left background. Both trees are proposed for removal.



Figure 19. Tree#427 is in center foreground and #426 is in right background. Both oaks are in fair to good health and are proposed for removal due to construction impacts.

Exhibit B: 12 Arroyo Sequoia (Lot 96) Tree Impact Assessment Spreadsheet

Date: February 12, 2024

Prepared by Rob Thompson, ISA Certified Arborist

Note: Below are 37 trees, identified by tag#s 400-436, that have the potential of being affected by proposed property development. Given the proper implementation of tree protection measures, construction related impacts are expected to be insignificant (i.e., low to moderate).

Note: 3 oak trees proposed for removal are highlighted in red.

Note: The Critical Root Zone (CRZ) area normally extends beyond the canopy dripline, especially in naturally growing trees. The minimum CRZ area that must be protected is the distance from the trunk in feet that is 5X the DBH

(diameter at breast height) of the tree or a minimum 5 foot protection zone (whichever is greater), but this is a minimum and ideally should be extended further away from the tree. Where possible avoid disturbing or impacting area within canopy dripline or even area immediately beyond canopy dripline. The Recommended Root Protection Zone Area provided below is a minimum and should be greater if possible. If disturbance is planned within this zone the project arborist should be notified and consulted.

# of Trees	Tree Tag #s	Tree Specie	DBH (inches)	Crown Class	Balance & Symmetry	Physiological Condition	Structural Condition	Construction Impacts	Recommended Root Protection Zone Area approximate radius measured from trunk in feet	Comments & Observations
1	400	Coast Live Oak	40	Codominant	Poor	Fair	Poor	Low	Located along existing paved driveway	Potentially impacted by project operations, but impacts are expected to be minimal and insignificant. Located in Openlands along existing paved driveway.
2	401	Coast Live Oak	60	Codominant	Fair	Fair	Poor	Low-Moderate	Located along existing paved driveway	Initially impacted by project operations, but impacts are expected to be minor to moderate and insignificant. Located in Openlands along existing paved driveway.
3	402	Coast Live Oak	48	Codominant	Poor	Fair	Poor	Low	Located along existing paved driveway	Potentially impacted by project operations, but impacts are expected to be minimal and insignificant. Located in Openlands along existing paved driveway.
4	403	Coast Live Oak	30	Codominant	Fair	Poor	Poor	Low-Moderate	Located along existing paved driveway	Initially impacted by project operations, but impacts are expected to be minor to moderate and insignificant. Located in Openlands along existing paved driveway.
5	404	Coast Live Oak	26	Intermediate	Poor	Fair	Poor	Low	Located along existing paved driveway	Potentially impacted by project operations, but impacts are expected to be minimal and insignificant. Located in Openlands along existing paved driveway.
6	405	Coast Live Oak	54	Codominant	Poor	Fair	Poor	Low-Moderate	Located along existing paved driveway	Initially impacted by project operations, but impacts are expected to be minor to moderate and insignificant. Located in Openlands along existing paved driveway.
7	406	Coast Live Oak	18	Intermediate	Poor	Poor	Poor	Low	8-10 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant. Located in Openlands.
8	407	Coast Live Oak	67	Codominant	Poor-Fair	Fair	Poor-Fair	Low	20-25 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant. Located in Openlands.
9	408	Coast Live Oak	21	Codominant	Poor	Poor-Fair	Poor-Fair	Moderate	10-15 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
10	409	Coast Live Oak	19	Codominant	Poor	Poor-Fair	Poor	Moderate	10-15 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
11	410	Coast Live Oak	47	Codominant	Fair	Fair	Fair	Moderate	15-20 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
12	411	Valley Oak	41	Codominant	Poor	Fair	Poor	Moderate	15-20 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
13	412	Coast Live Oak	72	Codominant	Poor-Fair	Fair	Poor-Fair	Moderate	20-30 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
14	413	Coast Live Oak	55	Codominant	Fair	Fair	Poor-Fair	Moderate	20 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
15	414	Coast Live Oak	41	Codominant	Poor	Fair	Poor-Fair	Moderate	15-20 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
16	415	Coast Live Oak	56	Codominant	Fair	Fair-Good	Poor-Fair	Low	20 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant.
17	416	Coast Live Oak	33	Codominant	Fair	Poor-Fair	Fair	Moderate	10-15 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health. Double trunk oak.
18	417	Coast Live Oak	38	Intermediate	Poor	Poor-Fair	Poor	Low	15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant.
19	418	Coast Live Oak	24	Codominant	Fair	Fair	Fair	Low	10-15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant.
20	419	Coast Live Oak	51	Codominant	Poor	Fair	Poor	Low	20 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant.
21	420	Coast Live Oak	39	Codominant	Poor	Fair	Poor	Low-Moderate	15-20 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minor to moderate and insignificant.
22	421	Coast Live Oak	34	Codominant	Poor	Fair	Poor	Remove	Remove	Removal is necessary due to oak being located directly adjacent to proposed construction activities.
23	422	Coast Live Oak	32	Codominant	Poor	Fair	Poor	Low	15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant.
24	423	Bay Laurel	20	Intermediate	Poor	Fair-Good	Fair	Low	10-15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant.
25	424	Coast Live Oak	37	Codominant	Fair-Good	Fair-Good	Fair	Low	15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant.
26	425	Coast Live Oak	18	Codominant	Poor	Fair	Poor	Low	10-15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant.
27	426	Coast Live Oak	19	Codominant	Fair-Good	Fair	Fair	Remove	Remove	Removal is necessary due to oak being located directly adjacent to proposed construction activities.
28	427	Coast Live Oak	18	Codominant	Fair	Fair-Good	Fair	Remove	Remove	Removal is necessary due to oak being located within the proposed construction footprint.
29	428	Coast Live Oak	60	Codominant	Poor-Fair	Fair	Poor-Fair	Moderate	20-25 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
30	429	Coast Live Oak	28	Intermediate	Poor	Fair	Poor	Moderate	10-15 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
31	430	Coast Live Oak	30	Codominant	Poor	Fair	Poor	Moderate	15 feet	Impacts from grading and construction activities is expected to be moderate and not compromising tree health.
32	431	Coast Live Oak	19	Codominant	Fair-Good	Good	Fair-Good	Low-Moderate	10-15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minor to moderate and insignificant.
33	432	Coast Live Oak	15	Codominant	Poor	Fair	Poor	Low	10 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minimal and insignificant.
34	433	Coast Live Oak	31	Codominant	Fair	Good	Fair	Low-Moderate	15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minor to moderate and insignificant.
35	434	Coast Live Oak	20	Codominant	Fair	Fair-Good	Fair-Good	Low-Moderate	10-15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minor to moderate and insignificant.
36	435	Coast Live Oak	32	Codominant	Poor	Poor-Fair	Poor	Low-Moderate	15 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minor to moderate and insignificant.
37	436	Coast Live Oak	14	Intermediate	Fair-Good	Fair	Fair-Good	Low-Moderate	8-10 feet	Potentially impacted by grading and construction activities, but impacts are expected to be minor to moderate and insignificant.

Total of 37 native trees (35 Coast Live Oaks, 1 Valley Oak and 1 California Bay Laurel) assessed & recorded.

Total of 3 oak trees proposed for removal (highlighted in red).

Tree replacement: Plant a total of 11 replacement Coast Live Oak trees. 5 to 15 gallon container size is recommended.

Replacement ratios: 1 Coast Live Oak replaced at a 5:1 replacement ratio and 2 replaced at a 3:1 replacement ratio.



HOMELAND BOUNDARY
N. HOMELAND SETBACK

S. HOMELAND SETBACK
HOMELAND BOUNDARY

ARROYO SEQUOIA

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426

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