



# Hidden Hills Long Valley Road/ Valley Circle/US-101 On Ramp Improvement Project

## Arborist Report and Tree Protection Plan

*prepared for*

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Rincon Consultants, Inc.

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# 1 Introduction

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Rincon Consultants, Inc. (Rincon) has prepared this Arborist Report and Tree Protection Plan for Willdan Engineering for the city of Hidden Hills Long Valley Road/Valley Circle/US-101 On Ramp Improvement Project (project). The project is located in the city of Hidden Hills and the city of Los Angeles, California. This report documents the results of a survey for protected trees within the project footprint, pursuant to the Hidden Hills Municipal Code Title 5 Chapter 8, per the City of Hidden Hills's Tree Preservation Ordinance. The report provides generalized impacts based on limited available project plans, as well as standard tree protection measures.

## 1.1 Project Background

The project is located along Long Valley Road, extending from the Hidden Hills community (community) entrance to Valley Circle Boulevard, and continuing approximately 500 feet north along the west side of Valley Circle Boulevard. The western half of the project is located in Hidden Hills, and the eastern half is located in Los Angeles, as shown in Figure 1.

The proposed project consists of easing traffic congestion at the Long Valley Road and Valley Circle Boulevard/U.S. 101 on-ramp intersection, improving pedestrian access on Long Valley Road and Valley Circle Boulevard, and improving vehicle access and queuing at the gate entry with proposed improvements for a new parking lot to accommodate a staging and prescreening area adjacent to the guard house. Specific project components are described below, along with anticipated construction activities.

Project components include:

- Roadway and sidewalk improvements (drainage, right-of-way [ROW] acquisition)
- Parking lot improvements (landscaping, irrigation)
- Guard house and gate access (island median modifications)

### Roadway and Sidewalk

To reduce traffic congestion and improve traffic flow/access at the Long Valley Road entry gate, the project would construct a new westbound right-turn lane at the Long Valley Road and U.S. 101 on-ramp intersection. Approximately 1,200 square feet of additional street right-of-way would be required along the north side of Long Valley Road to accommodate this roadway improvement. The proposed ROW acquisition would require a ten-foot wide strip extending approximately 240 feet along Long Valley Road.

To enhance pedestrian safety and access to retail shops on Valley Circle Boulevard/Mullholland Drive, new sidewalk improvements will be installed along the north side of Long Valley Road and extend to the west side of Valley Circle Boulevard. The sidewalk improvements will be five feet wide and 660 linear feet along Long Valley Road, which will transition to ten-foot wide along Valley Circle Boulevard for approximately 380 linear feet, terminating at a marked crosswalk at the Ventura Boulevard intersection.

Figure 1 Project Area



To accommodate the new sidewalk on Long Valley Road, a four-foot high retaining wall will be installed to maintain pedestrian access adjacent to the sloping property from the nursery; it will extend for approximately 250 linear feet from the intersection of Long Valley Road and Valley Circle Boulevard. Based on the existing topography, change in elevation from the start of the sidewalk at the guard house to its end on Valley Circle Boulevard will be approximately 105 feet. The new sidewalk will also cross over an existing box culvert, located midway along Long Valley Road. The majority of the roadway and parkway improvement will be constructed within Los Angeles, with a small portion in the Hidden Hills.

## Parking Lot and Staging Area

The project will include development of a parking lot and vehicle staging area on a vacant parcel to the east of the guard house and gate entry. The approximate 0.44-acre triangular-shaped lot is on the north side of Long Valley Road and within the City of Hidden Hills; a commercial nursery is present to the east and single-family homes to the west. The parcel is generally flat and unpaved with several mature native oak trees on its western portion adjacent to Long Valley Road. This parcel is mostly disturbed with minimal vegetation due to vehicle access and activities related to the adjacent nursery. Development of the vacant parcel would consist of 16 parking spaces (14 standard spaces and 2 handicapped spaces), pedestrian access, staging area for vehicle queuing, curb and gutter, paving and preservation of existing oak trees with the addition of new trees, landscaping and landscape features.

In addition to the above, the proposed parking lot improvements would include reconfiguration of an existing parking area located along the south side of Long Valley Road. These improvements would relocate the existing 7 parking spaces along Long Valley Road and construct an approximately 0.4-acre new parking lot to allow vehicle ingress and egress without conflicting with traffic on Long Valley Road. Proposed improvements would consist of 11 parking spaces (8 standard spaces with six spaces in stacked parking configuration, 2 compact spaces and 1 handicapped space), pedestrian access, curb and gutter, paving, and preservation of existing oak trees with the addition of new trees and landscaping.

## Guard House and Gate Entry

A new guard house and entry gates will replace the existing ones and be located easterly approximately 12 feet to the east of their current position. This relocation is designed to accommodate U-turn movements at the guard house and provide efficient access from the adjacent parking areas. The new guard house and gate entry will also be widened to provide two ingress lanes; the lane adjacent to the guard house will be actuated by an attendant for visitors and a separate outside lane will be actuated automatically with an electronic pass key for residents only. These improvements are anticipated to require an additional 12 feet of street width.

## Construction Phasing and Schedule

The project will be completed in two phases. Phase One will encompass improvements within Hidden Hills. Phase two will involve improvements outside the city. Considering the sensitivity of the project timing and the amount of time required for processing approvals from various agencies, the improvements within the city's limits (Phase One) will be completed first. Phase One improvements will include the parking lot, pavement improvements, striping, and signage and potential inclusion of the guard house relocation, traffic turn-around, and additional parking lot across the street. Such

improvements will be limited to shallow excavation where any ground disturbance would not exceed two feet below existing grade. General construction activities will involve grading, paving, landscape, irrigation, striping, concrete construction and potentially drilling for water quality.

It is anticipated that construction of the project would commence in the summer of 2019 and last approximately six months. Assuming this construction time frame, the proposed project would be completed by December 2019.

## 1.2 Project Plans

The conceptual drawings for the project were provided to Rincon by the Applicant on February 14, 2019 as a portable document format (PDF); and the overall project limits were provided on April 1, 2019 as a computer-aided design (CAD) file. The overall project improvement limits were used for the tree survey and protected tree impact analysis.

The project plans have not yet been finalized and as a result the impact analysis herein is preliminary. Specific trees requiring removal will be assessed and tree protection measures developed when project design plans are finalized.

## 2 Regulatory Context

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The project is located partially in the Hidden Hills and partially in the Los Angeles. Based on a conversation with Hidden Hills City Hall Compliance and Infrastructure Coordinator, Bob Coffey, the request for a tree permit for the project will be reviewed and approved solely by the City of Hidden Hills. As such, this report is only pursuant to the City of Hidden Hills's Tree Preservation Ordinance. A summary of the City of Los Angeles's Protected Tree Ordinance is provided in this section as well for reference.

### 2.1 City of Hidden Hills

The City of Hidden Hills Municipal Code Title 5 Chapter 8 (City of Hidden Hills 2018) contains policies to protect native oak trees and historical trees for the health, safety, or welfare of its citizens.

- **Native oak tree.** Any live tree of the genus *Quercus* and species *lobata*, *agrifolia*, *dumosa*, or California native hybrids that are alive, which is four (4) inches in diameter (12.5 inches in circumference) for a single trunk tree, or whose combined trunks total six (6) inches in diameter (18.8 inches in circumference) for a multi-trunk tree, measured at four and one-half feet above mean natural grade.
- **Historical tree**<sup>1</sup>. Any live tree which is 11.46 inches in diameter (36 inches in circumference) for a single trunk, or whose combined diameter of any two trunks is 17.19 inches in diameter (54 inches in circumference) for a multi-trunk tree, measured at two feet above mean natural grade.

A permit shall be required when an applicant wishes to perform any of the following acts:

- Severe pruning and/or trimming of
  - **Historic tree.** Topping or cutting back limbs (larger than three inches in diameter) to stubs, within the tree's crown to such a degree as to remove the normal canopy.
  - **Native oak trees.** Topping or cutting back of limbs to stubs within the tree's crown to such a degree as to remove the normal canopy.
- Removal/cutting down
- Damage. Any act causing injury to the root system or other parts of a tree, including without limitation, burning, application of toxic substances, operation of equipment or machinery and paving, changing the natural grade, trenching or excavating inside or within five feet of the drip line.

A tree permit may be issued by the Planning Director (Director) without the prior approval of the Hidden Hills City Council if the project meets all of the following conditions:

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<sup>1</sup> Also defined as a living tree designated by resolution of the Hidden Hills City Council as a Historic Tree. Based on a conversation with Dirk Lovett, Hidden Hills City Engineer, on April 11, 2019, no trees within or adjacent to the project limits are specifically designated as Historic Trees.

1. No more than five native oak trees and/or historic trees are to be severely pruned and/or trimmed, removed, cut down, damaged, or impacted by grading or construction activities inside or within five feet of the drip line of any such trees;
2. Significant on-site vegetation shall remain on the site; and
3. The adjacent property owners have been notified of the application and provided the opportunity to submit comments to the Director within ten days of the notification. If the Director receives an objection to the issuance of a tree permit, the Director shall automatically refer the application to the Hidden Hills City Council for determination.

The determination by the Director or the Hidden Hills City Council shall be based on information submitted by the applicant and the report by the City of Hidden Hills's qualified tree specialist. No tree permit shall be issued unless the decision maker makes both of the following findings:

- A. That the proposed construction, activity or use will be accomplished without endangering the health of the remaining trees, if any, on the subject property; and
- B. That the granting of the tree permit, will not result in soil erosion through the diversion or flow of surface waters which cannot be satisfactorily mitigated.

In addition to the above findings, at least one of the following findings shall also be made:

- A. That granting of the tree permit is necessary, since the continued existence of the trees at the present location frustrates the planned development or use of the subject property to such an extent that:
  - i. Alternative development plans cannot achieve the same permitted density or that the cost of such alternative would be prohibitive; or
  - ii. The existing location of such trees precludes reasonable and efficient use of such property for a use otherwise authorized; or
- B. That the trees interfere with utility services or streets and highways, either within or outside of the subject property, and such interference cannot reasonably be eliminated except through issuance of a tree permit; or
- C. With reference to trees with a seriously debilitating disease or in danger of falling, that the condition of the trees is such that it cannot be remedied through reasonable preservation procedures and practices.

In some cases a minor tree permit may be granted if the project does not impact more than two historic trees, but may not be issued for activities involving a native oak tree.

Please note that certain cases are exempt from the provisions of the Ordinance, including removal of "Damaging Trees", which are defined as street trees within public right of ways which, in the opinion of the Director, will cause damage to existing public improvements.

## 2.2 City of Los Angeles

The City of Los Angeles Protected Tree Ordinance (City of Los Angeles 2006), contains policies to protect native tree species that measure four (4) inches or more in cumulative diameter at four and one half (4.5) feet above ground level, and are of the following species: valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), or any other tree of the oak genus indigenous to California but

excluding scrub oak (*Quercus dumosa*); southern California black walnut (*Juglans californica* var. *californica*); western sycamore (*Platanus racemosa*); and California bay (*Umbellularia californica*).

A permit shall be required from the Board of Public Works for the removal or relocation of any protected tree, including any act that will cause a protected tree to die (e.g. damage upon the root system or other part of the tree by equipment or machinery or by changing the natural grade of land by excavation or filling the drip line area around the trunk).

An application for a permit shall include a copy of the grading permit plan if grading is proposed that may affect a protected tree.

Please note that certain cases are exempt from the provisions of this ordinance, such as when a building permit has been issued for the property and its implementation would necessitate the removal or relocation.

A permit may be granted if the tree is not designated as a Historical Monument or part of a Historic Preservation Overlay Zone and will not result in irreversible soil erosion through diversion or increased flow of surface waters, and

- Continued existence of the tree at the location prevents reasonable development of the subject property; or
- The tree shows substantial decline from normal health and vigor, and restoration is not feasible or advisable; or
- The tree is in danger of falling due to an existing and irreversible adverse condition.

### 3 Protected Tree Survey Methodology

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On April 3, 2019, Rincon ISA Certified Arborist, Yuling Huo (#WE-11975A) and biologist Justin MacMartin surveyed for all trees with canopies in the study area (project boundary and 20-foot buffer). Trees that did not meet the requirements for protection are not discussed further in this report. The locations of the study area and protected trees are shown in Figure 2. A Trimble device with a geo-referenced map of the survey area was utilized to collect data. Trees located on private property and outside of the project boundary were assessed from a distance. All trees were assigned a unique identification number. Trees within the study area were physically tagged with the corresponding number, where feasible.

Specifically, the arborists measured tree diameter, height, and canopy spread and assessed each tree. Driplines were collected using a Trimble device where access was feasible. Inaccessible portions of the dripline were estimated using aerial imagery and/or visual estimation of the canopy spread. Health and condition, including evidence of disease, insects, pests, structure, damage, and vigor were incorporated into the overall health rating based on archetype trees of the same species with criteria described in Table 1 below.

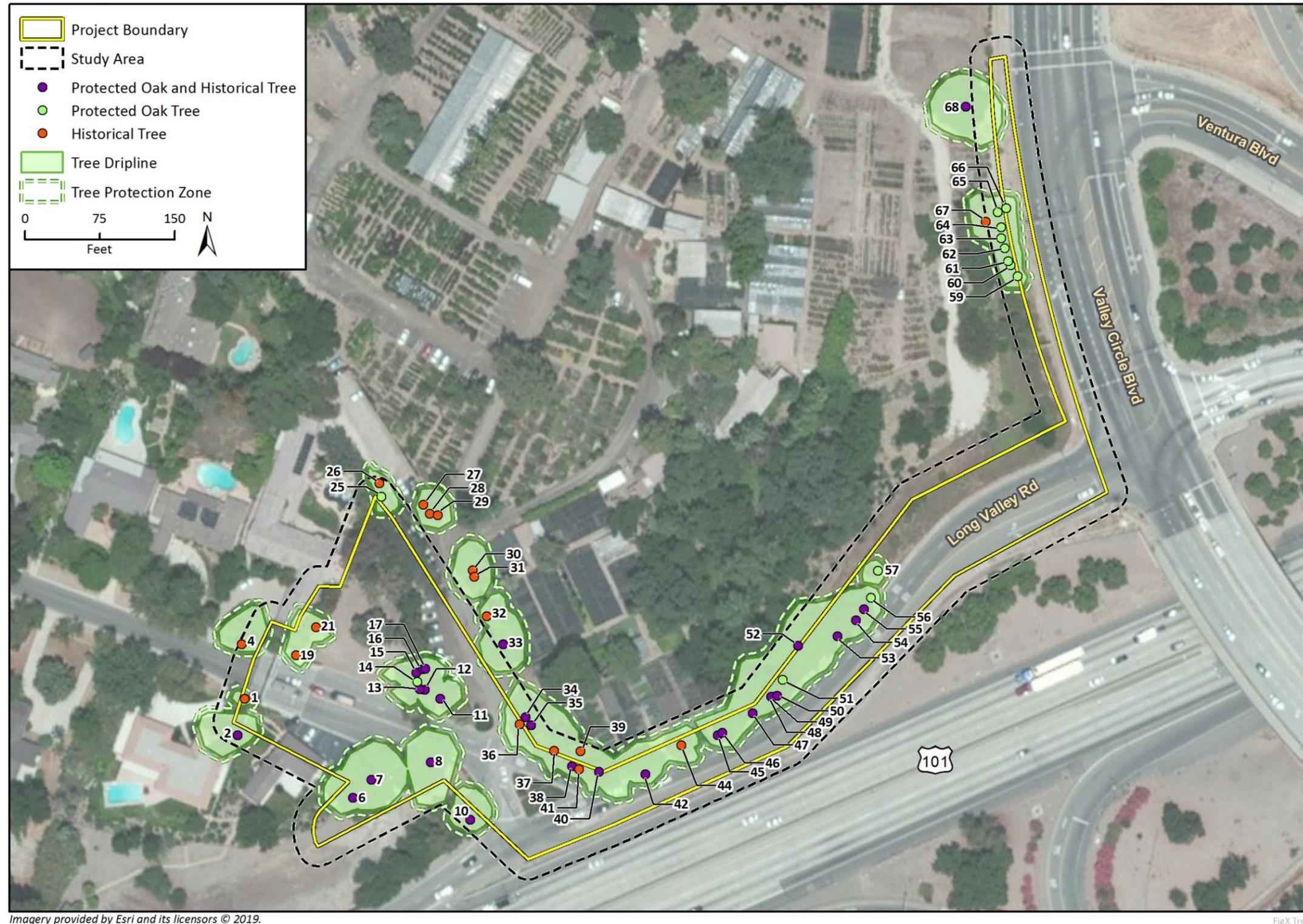
**Table 1 Overall Condition Rating Criteria**

| Rating    | Structure  |
|-----------|--|
| Excellent | In addition to attributes of a 'good' rating, the tree exhibits a well-developed root flare and a balanced canopy. Provides shading or wildlife habitat and is aesthetically pleasing.   |
| Good      | Trunk is well developed with well attached limbs and branches; some flaws exist but are hardly visible. Good foliage cover and density, annual shoot growth above average. Provides shading or wildlife habitat and has minor aesthetic flaws.                       |
| Fair      | Flaw in trunk, limb and branch development are minimal and are typical of this species and geographic region. Minimal visual damage from existing insect or disease, average foliage cover and annual growth.  |
| Poor      | Limbs or branches are poorly attached or developed. Canopy is not symmetrical. Trunk has lean. Branches or trunks have physical contact with the ground. May exhibit fire damage, responses to external encroachment/obstructions or existing insect/disease damage. |
| Dead      | Trunk, limbs or branches have extensive visible decay or are broken. Canopy leaves are non-seasonally absent or uniformly brown throughout, with no evidence of new growth.  |

The City of Hidden Hills defines the protected area of a tree, or tree protection zone (TPZ), as the dripline plus five feet. The trees' TPZs are mapped on Figure 2. The critical root zone (CRZ) is the area around the trunk and under the canopy where roots essential for tree health and stability are located. TPZs and CRZs of the protected trees will be discussed in the impact analysis section of this document when the project plans become available.

An assessment for risks and/or hazardous conditions was not conducted and not included in this report.

Figure 2 Protected Trees and Study Area



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## 4 Protected Tree Survey Results and Discussion

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A total of 58 native and non-native trees were observed to have canopies occurring within the study area and are protected by the City of Hidden Hills Ordinance, as shown in Figure 2. A photo of each tree is provided in Appendix A. Appendix B provides the data collected for all protected trees.

The protected trees include one (1) Brazilian pepper (*Schinus terebinthifolia*), four (4) Canary Island pines (*Pinus canariensis*), 38 coast live oaks (*Quercus agrifolia*), one (1) coast redwood (*Sequoia sempervivens*), one (1) eucalyptus (*Eucalyptus sp.*), three (3) fan palms (*Washingtonia sp.*), one (1) glossy privet (*Ligustrum lucidum*), five (5) Peruvian peppers (*Schinus molle*), one (1) shiny xylosma (*Xylosma congestum*), and three (3) valley oaks (*Quercus lobata*).

Of the 58 protected trees, 44 are considered historical trees based on their trunk sizes (including 27 oak trees and 17 non-oak trees).

Forty (40) trees were in Good overall condition based on the parameters shown in Table 1. Seventeen (17) trees were in Fair overall condition, and one (1) tree was in Poor overall condition.

Some trees were not physically tagged because of their location on private property, or because the trunk was not accessible due to presence of fencing.

In the western portion of the project, most of the trees are located adjacent to dirt lots, sidewalks, or asphalt on one or all sides of the trunk. In such areas where asphalt, concrete, or compacted bare ground is located within the trees' TPZs, some compaction of tree roots has likely already occurred.

A few protected trees are located in landscaped yards, and as a result, may be consistently irrigated and/or fertilized by property owners.

Many of the protected trees had canopies that intertwined with overhead utility distribution lines or had previous pruning cuts present, and two trees (Tree #'s 30 and 31) had been topped (the majority of the canopy removed for clearance for overhead infrastructure).

The trees located adjacent to Long Valley Road on the north and northwest sides were growing behind a chain-link fence, and the canopy of several of the oak trees were growing into and completely covering the fence. As such visibility of trees behind the fence was poor. In instances where the trunk was not clearly visible or accessible, the trunk diameter and condition was visually estimated.

A drainage is located approximately 400 southwest of the intersection of Long Valley Road and Valley Circle Boulevard. The portion of the drainage running under Long Valley Road is a concrete channel, but the portion north of Long Valley Road is earthen bottomed. A low flow of water was present in the drainage, and may be providing a water source to the surrounding oak trees in that area.

## 5 Impact Summary

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Of the 58 protected trees, 32 trees have trunks occurring within the project boundary; 17 trees have trunks occurring within the 20-foot buffer only; and nine (9) trees have trunks occurring outside of the study area, but have canopies that overhang the survey area. Impacts to trees will likely include encroachment (trimming of branches in the canopy, severing of roots, and soil compaction) or removal. Specific impacts can be quantified when the project plans are finalized.

Construction activities associated with the parking lot and road/street improvements are anticipated to include excavation and grading. As such, the greatest concern to tree health and mortality is root damage. As long as large lateral roots and sinker roots, which provide tree structural stability, are not removed, most trees should tolerate excavation affecting no more than 30% of the root zone (Arborilogical, 2009). It should be noted, that root systems vary by depth and may spread based on tree species, age, and soil type. Therefore, the full root zone may extend 2 to 3 times beyond the TPZ or may be less if the roots are impeded by physical barriers. Excessive damage to a tree's TPZ has potential to cause mortality to the respective tree.

Activities that may typically affect tree health and mortality when construction occurs near them include but are not limited to the following:

- Excavation/trenching—root severance
- Soil compaction (during and post-construction)
- Grading (cut and/or fill)
- Substantial trimming of canopy or roots
- Damage to limbs and branches from project equipment collision (mechanical damage)

The ISA recommends that activities affecting the roots of a tree impact no more than 20-25% of the root zone (ISA 2010). Impacts to more than 25% of the root zone of a tree can lead to rapid decline in tree health, and impacts to 40-50% of the root zone of a tree typically result in death of the tree (United States Department of Agriculture, 2003; California Department of Forestry (CDF), 1989a; CDF, 1989b). Removal of larger roots (particularly lateral or sinker roots and roots greater than two inches in diameter) can severely impact the stability of the tree. Healthy and young trees may tolerate impacts to as much as 50% of their canopy or root system, (Sinclair, Lyon, and Johnson; 1987); however, trees that are relatively large and/or old for the species or already under stress will have lower tolerances.

Adherence to the mitigation measures below would minimize impacts to protected trees. In the event that encroachment of the TPZ exceeds 30%, or is too great to allow for survival of a protected tree (as determined by a Certified Arborist during construction), the impact status would be considered a removal.

## 6 Tree Protection Plan (TPP)

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The following measures should be implemented to reduce impacts to protected trees.

### 6.1 Pre-Construction

#### **Worker Awareness**

All personnel should receive a training/presentation by a certified arborist about the TPZs prior to working within or adjacent to these areas. The training should include explanation of the importance of TPZ signage and the protocol for working within TPZs, which is discussed below.

### 6.2 During Construction

#### **Oversight of Impacts to Trees**

No person should impact protected trees without oversight by a certified arborist or a qualified biologist under his/her direct supervision. A daily log will be completed by the arborist or qualified biologist that documents all root and branch cuts (size, number, and location) for each tree. In addition, a copy of this report, the protected tree location map, and the approved City of Hidden Hills permit, if applicable, should be on site at all times.

#### **Fencing/Signage**

The majority of the project is located on a public right-of-way and is generally linear in nature. Typical fencing around protected trees is not required during construction in these areas because establishing fencing daily and then moving the fencing daily for construction is not feasible. As an alternative, portable standalone signs should be placed at TPZs when construction activities are within 10 feet of protected trees. The signs should be moved along active phases of construction. The signs should say "Tree Protection Zone, Contact [Construction Manager] Representative" and should remain in place throughout the temporary period of construction (i.e., may be moved overnight and replaced at the start of the work day, or left in place until construction activities in the area are completed). The TPZs should be shown on site plans.

In areas where typical fencing is feasible (i.e. in the empty lots within the project limits), a chain-link fence at least four feet in height should be installed around the TPZs and shown on a site plan. Signs as described above should be placed on the fencing and spaced evenly so as to be visible from all areas of the site. Fencing should remain in place until construction is completed. Presence of the signs should be confirmed by a representative of the Hidden Hills City Director or certified arborist.

#### **Grading/Excavation/Trenching**

Where grading, trenching, or any other ground disturbing activity occurs and/or is specifically shown on the project plans within a tree's TPZ, the activity should be done slowly so that when roots are encountered they are not ripped or damaged by equipment. Hand tools or small hand-held power

equipment should be utilized, as feasible. Cutting roots two inches in diameter or greater should be avoided wherever possible.

## Root Severance

When root cutting occurs, exposed major roots that are greater than two inches in diameter should not be ripped by construction equipment. Instead, they should be cut cleanly. Cuts should be clean and made at right angles to the roots. New cuts should be covered with absorbent tarp or heavy cloth fabric.

## Pruning/Trimming

All pruning/trimming should be performed consistent with the ANSI A300 Pruning Standard (ANSI 2017) and should adhere to the most recent edition of ANSI Z133.1. Pruning/trimming of protected trees will be limited to only what is necessary for construction. Climbing spurs and spikes should not be used, except in cases of emergency.

## Soil Compaction

Soil compaction imposes a complex set of physical, chemical, and biological constraints on tree growth. Principal components leading to limited growth are the loss of aeration and pore space, poor gas exchange with the atmosphere, lack of available water, and mechanical impedance of root growth. Soil compaction is considered to be the largest single factor responsible for the decline of trees on construction sites. Given the current site conditions (paved roads, sidewalks, and bare dirt lots), most of the existing protected trees already have compacted soil within the project limits. The following guidelines are recommended to protect trees from any additional soil compaction that may occur due to project activities:

- No equipment or materials will be stored under canopies, or within the TPZ of protected trees (except in areas of paved asphalt or concrete sidewalks). On-site staging, storage and washing of construction materials and equipment will be limited to designated and approved areas. Steel traffic plates should be employed to protect sensitive root zones as needed.
- In areas of paved asphalt or concrete sidewalks, equipment may travel within TPZs without a monitor present. If pavement or asphalt is being removed within TPZs, or equipment must travel in areas of exposed soil, a certified arborist should monitor and document the activity.

## Exhaust Exposure

Equipment should limit or avoid travel within TPZs (under tree canopies) to reduce impacts from equipment exhaust exposure. If equipment must operate within TPZs, the exhaust should be directed away from the foliage of protected trees, as feasible. When equipment is operating within TPZs, a certified arborist should monitor and document the activity.

## Mechanical Damage

Damage to limbs and branches from project equipment (mechanical damage) may occur if work, including staging and access, occurs within TPZs. If damage occurs to limbs and branches, immediate trimming with clean cuts should occur in accordance with the ANSI standards discussed above. If damage to the bark or trunk occurs, wound dressings are not recommended. Treatment of said damages may be applied in accordance with the ANSI A300 Management of Trees and Shrubs

during Site Planning, Site Development, and Construction (ANSI 2012). A certified arborist should monitor and document this activity.

## 6.3 Post-Construction

If any protected tree dies or is damaged to the point of requiring removal during construction activities, the Hidden Hills City Director may require one of the following mitigation measures:

- Replacement trees should be provided at a 4:1 ratio for each tree removed, unless otherwise recommended by the Director. In no event may the Director require a replacement ratio of less than 2:1.
- Replacement trees should be of suitable type, size, number, location, and date of planting. Relocation of trees approved for removal may not necessarily be a mitigating factor. The Director may consider the following factors:
  - Vegetative character of the surrounding area,
  - Number of protected trees proposed for removal in relation to protected trees currently existing within the project limits,
  - Anticipated effectiveness of the replacement trees, and
  - Development plans for the proposed construction or use of the subject property.
- A bond shall be posted to the satisfaction of the Planning Director to guarantee the survival of replacement or relocated trees for a period of three years from that date that such trees are planted. For the purposes of establishing the bond amount, the value of replacement trees should be established by the Director's estimate, mutually agreed upon by the applicant and Director; and/or appraised by an arborist, horticulturist, or licensed landscape architect.

## 7 References

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# Appendix A

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Photograph Log

# Appendix B

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Protected Tree Matrix