

PROTECTED TREE REPORT

Client:

Ms. Tricia Ferruzza

Site:

3948 Skelton Canyon Circle
Westlake Village, CA 91362

Date:

March 28, 2024
February 29, 2024
January 20, 2024
September 27, 2023
December 19, 2022
April 2, 2022

Prepared By:

James Dean, RLA



LANDSCAPE ARCHITECTURE | PLANNING | TREE CONSULTANTING

3533 Old Conejo Rd., #113, Newbury Park, CA 91320
Phone (805) 498-9922
www.jamesdeandesign.com

PROTECTED TREE REPORT

CLIENT

Tricia Ferruzza

SITE ADDRESS

3948 Skelton Canyon Circle
Westlake Village, CA 91362

REPORT DATE

March 28, 2024

BACKGROUND

The subject site is in North Ranch. It is one of the only undeveloped parcels remaining there and is approximately nineteen (19) acres in size. It is covered with many old mature indigenous oak trees of the two species found locally. Some of the largest oaks in the North Ranch are found within this forest canopy. The major drainage course of the North Ranch passes through this site and is laden with oaks located upon its freeboard banks. The flow line of the arroyo is at the highest end, approximately twelve to fifteen feet vertically below the adjacent slightly sloping ground on both sides of the arroyo.

CHALLENGES TO DEVELOPMENT WITHIN THE OAK FOREST

The building pad is located deep into the site, adjacent to an existing occupied residence. This building site, as designed for the proposed dwelling, presents a narrow building footprint with oak trees to the east of the structure. The natural toe of an ascending hillside slope occupies the opposite side trending in a north/south direction.

The driveway access to the site is limited to a narrow corridor beginning at the terminus of West Skelton Canyon Drive. A driveway serving the site, acceptable to building codes as well as the fire department, must be at least fifteen (15) feet wide, with curvilinear alignment to accommodate emergency ingress and egress.

To achieve these requirements the driveway must descend from the developed vertical elevation of the street curb to meet natural grade below requiring a minor fill immediate to tree No.1. Then it meanders through the random locations of the oak trees. As is normal, the natural location of the oaks frustrates the effort to minimize impact of the trees listed within this report.

Due to the alignment of the driveway, passing close to the tree trunks, it is critical that the construction of the paving be porous. It should have minimal embedment

into the existing ground to minimize root interference of the oaks. This will ensure that the least amount of root system perturbation will occur.

GENERAL STATEMENT IMPACT TO TREES - DRIVEWAY DESIGN

Our opening statement to the West Skelton oak tree impact and mitigation applies to the trees relating to the driveway. Information concerning the trees, focused within this report, is presented herein.

The entry driveway corridor to this site is a unique feature, serving vehicular access to the site. The driveway design displays the use of individual concrete pavers that will be placed upon an eight (8) inch compacted road base. This installation ensures permeability. (See section drawings herein.)

As required by the Geotechnical Engineer, before placement of the gravel, the first eight (8") inches of soil should be removed down to competent soil to remove organic material contained therein. This is required to resist future subsidence of the driveway surface.

Belgard, dry stack tandem wall units will be used, road base will be laid on each side of the driveway to support the elevated driveway. This wall can be built with minimal root interference.

On the driveway side of the wall, concrete curbs and gutter will be installed on each side of the driveway, to contain the pavers against displacement. No mortar will be necessary. The driveway will skirt through the oak tree forest passing each tree at differing distance from their trunks. (See the Protected Tree Map attached herein for the tree numbers affected by construction of the driveway.)

Special drainage devices made up of perforated drainage pipe will accept runoff water, from areas where drainage has been interrupted upslope of the driveway.,and deposit it onto natural grades through outlets. Natural rainwater will be directed to one side of the driveway and will be received and deposited as presented within the plans prepared by Westland Civil Engineers. Utility service to the site will follow the alignment of the driveway beneath its centerline with associated root interference. (See civil drawings)

GENERAL STATEMENT IMPACT TO TREES – BEYOND THE DRIVEWAY

Besides the removal of Tree 51, the impact that will be received on the other trees will consist of pruning for required fire clearance and some minor feeder root disturbance. Trees 54-76 will receive no impact.

CONSIDERING PERCENTAGE OF ENCROACHMENT

It is required the percentage of encroachment into the dripline of an oak tree be determined and stated within an Oak Tree Report. This site has the greatest number of large oak trees within the developable area in all of North Ranch. These trees form a natural forest with their branches and leaf canopies intertwined. There is no identifiable dripline within the joint areas of the canopies. Therefore, determining the true percentage of encroachment is impossible.

We suggest the area within the leaf canopy of forested trees, such as Tree numbers 1 and 2, can be estimated as follows:

- Large oak trees, if they stood alone, would present similar square foot areas within their leaf canopies. This condition would prevail if they were not in a forest setting.
- It is fair to assume that this encroachment into each tree within the comingled forest would be one half of the driveway width that would fall within the dripline of the tree.
- The total area of the driveway will encroach within the canopy of these trees.

See Encroachment and Pruning Schedule within this report.

CITY ROOT PROTECTION SPECIFICATIONS STATED

Per the Guidelines (V.B.3.1.b-e), regarding excavation and roots, specifically, when approved, trenching under the dripline of an oak tree shall be performed with hand tools only. All of the work must be conducted in the presence of an oak tree preservation consultant.

Minor roots under one inch in diameter may be cut but must be treated with a fungicide/sealant compound immediately after cutting and before the improvement is installed.

Major roots over one inch diameter may not be cut without permission of the city. Depending upon the type of improvement being proposed, bridging techniques or a new site may need to be employed to protect the root and the tree.

This project cannot be completed without cutting roots over two (2) inches in diameter. Cutting roots is necessary due to the deep trenches required for utilities. Since the driveway passes through comingled root zones of adjacent trees, it is likely that some roots greater than three (3) inches in diameter will be encountered.

RECOMMENDATIONS FOR ANY ROOTS ENCOUNTERED

The following recommendations are presented to execute the work. These comments guide us to successful protection and preserving the oak trees located upon this site.

- 1, All excavation within the Tree Protected Zone of any oak tree must be performed with hand tools.
2. The condition of the surface of the site, is laden with deep leaf duff above and mixed within loose soil. The Geotechnical consultant requires that the duff be carefully removed down to competent material, without organic material, before installing concrete curbs and pavement,
3. The compacted road base for the driveway paving should be constructed upon firm natural grade limiting excavation to eight (8) inches vertical.
4. The drainage swale must be dug to the necessary depth with hand tools.
5. Excavation for utilities will vary in depth and must be executed before construction of the driveway
6. Photographs must be taken of the roots prior to cutting them. The photographs, showing the roots should be presented to the city inspector as proof of adherence the policies and conditions of the City of Thousand Oaks.
7. Cut roots must be treated with Ailette Fungicide immediately after being cut.
8. All work beneath the leaf canopy of each tree should be carefully and continuously supervised.

TREE PROTECTION ORDINANCES AND POLICIES

Public law within the City of Thousand Oaks protects all trees of the genus *Quercus*. CITY ORDINANCE 1610-NS makes the cutting, moving and / or removal of an oak tree without a permit a misdemeanor.

The OAK TREE PRESERVATION AND PROTECTION GUIDELINES RESOLUTION NO. 2010-14 affords additional protection of Oak Trees.

A zone of protection (The Protected Zone or TPZ) is defined as beginning 5' beyond the drip line of an oak tree extending inward to the tree trunk.

The drip line is an imaginary line on the ground directly below the furthest extension of the leaf canopy in any direction. The TPZ shall be no less than fifteen feet from the tree trunk in any direction.

LANDMARK TREE ORDINANCE NO. 1217-NS RESOLUTION NO. 70-45

Public law within the City of Thousand Oaks protects certain irreplaceable trees with historical significance. Included within this list are certain sized trees of the following species.

Platanus racemosa (California Sycamore)

Umbellularia californica (California Bay Laurel)

Juglans californica (California walnut)

Heteromeles arbutifolia (Toyon)

PROTECTED SPECIES

This site and the adjacent Homeowner Association controlled area present a natural forest of oak trees, too many to record the precise location of each unaffected tree. In other words, there are many more trees present on-site that are not listed within this report. Those trees, not listed, will not be affected by the purposed development.

Oaks listed within this report:

22	<u>Quercus agrifolia</u>	Coast Live Oak – On Site
1	<u>Quercus lobata</u>	Valley Oak – On Site
6	<u>Quercus agrifolia</u>	Coast Live Oak Off-site
1	<u>Platanus racemosa</u>	California Sycamore Off-site

See Tree Location Map for individual tree locations.

September 12, 2023

Ventura county fire code

Ventura County Fire Protection District Ordinance number 32 an ordinance of the Ventura County Fire Protection District repealing Ordinance No. 31, adopting by reference the 2022 California Fire Code together with appendix o, portions of the 2021 international fire code, and portions of title 19 of the California Code of Regulations, with additions, deletions and amendments thereto, and incorporating by reference fire district ordinance no. 29.

4907.7.6.5 trees. New trees shall be planted and maintained so that the tree's drip line at maturity is a minimum of 10-feet (3048 mm) from any combustible structure.

4907.7.6.5.2. Ground clearance of trees. Trees exceeding 6-feet in height shall be limbed up from the ground 6-feet or 1/3 the height of the tree, whichever is less. Exception: Fruit trees when approved.

To adhere to these new rulings, it will be necessary to remove Tree No. 7 and No. 51. Further, Tree No.51 A, B, C and G will receive pruning. It will be necessary to maintain the required distance in perpetuity.

FIRE DEPARTMENT VERTICAL CLEARANCE REQUIREMENTS

The current vertical height clearance required by the VCFD is thirteen feet six (13'-6") inches. Throughout this report we have estimated the clearance to be fifteen (15) feet and will continue with this estimate.

FIRE DEPARTMENT ROADWAY CLEARANCE

4907.9 Clearance of brush or vegetative growth from roadways. The Fire Code Official is authorized to require areas within 10 feet (3 048 mm) on each side of

portions of Fire Apparatus Access Roads and driveways to be cleared of non-fire resistive vegetation growth.

This rule applies to the driveway from Skelton Canyon Drive to the VCFD turnaround at the entry to the dwelling.

SITE ENVIRONS

The site features undisturbed natural ground with scattered weed growth, and duff from fallen leaves at the surface. Site boundary at the northerly end of the project is a long and narrow strip with an active arroyo passing by east of the site. The Homeowner's Association owns a small portion of property within the proposed driveway on the northerly portion of the site. They have offered Tricia Ferruza an easement over that property. (See Civil Plans)

DOCUMENTATION

The following documents shall be maintained upon the project site when building commences and until final acceptance by the city:

1. Copy of the approved Tree Report.
2. The Conditions of Approval relating to trees.
3. The approved tree permits and pertinent city conditions of development.

FENCING PLAN

Tree protection fencing (TPF) shall be placed as shown on the Tree Location Map. The employed fence shall be of temporary chain-link, at a minimum height of five (5) feet, with posts at eight (8) feet on center and the posts driven twelve (12) inches into natural soil. The fence must have square white colored signs (2'X2') with black lettering stating that :

WARNING

THIS FENCE SHALL NOT BE REMOVED OR RELOCATED
WITHOUT WRITTEN AUTHORIZATION FROM THE
COMMUNITY DEVELOPMENT DEPARTMENT.

Signs must be inspected by the city and approved before commencement of the work. They must be maintained in place during all construction and may not be removed without obtaining written authorization of the Community Development Department. The signs must be placed at four locations around a tree. Fencing around a group of trees shall be placed at approximately fifty (50) foot intervals.

SITE WORK

Our initial cruise, as a part of new ownership of the site, was conducted February 2022. Many additional site visits have been conducted, over the years, and after that date. The most recent visit was conducted on March 15, 2023.

The current proposed grading plan reflects a driveway alignment designed that will satisfy requirements of the city and the fire authority.

During the initial site visits, each tree affected was assigned an identifying number and a corresponding metal tag number was affixed onto the north side of the trunk at four-foot six inches above grade. The trees were photographed and measured for recording purposes.

Tree numbers are random (not necessarily sequential) using tags available at the time of the site visits.

Note that tree tags, and survey stakes, have been vandalized numerous times in the past three years. That is the reason for the random nature of the numbers.

A previous report was prepared by us and many oaks, thought to be involved, with that plan, also were numbered and tagged. Therefore, one will observe that some other numbered oaks, are not identified within this report, bear tags.

Seven (7) immature (immature) Coast Live Oak trees were surveyed and added to the inventory as shown on the map. They are present between Trees 51 and 53 and are assigned numbers 51A-G. They were not tagged due to the precipitous and dangerous slope condition.

Also, pertinent information was verified as to the current status of each tree. The health and appearance and the presence of any visible disease symptoms and/or apparent structural defects were recorded.

UTILITY PREPARATION

Utility installation will be the first major work of the improvements. The utility service to the site will follow the alignment of the driveway beneath its centerline. The excavation of each utility will vary in depth to separate each from others. The excavation will cause root impact to individual trees. However, the consequence of the impact should not be lethal to any tree. The precise diameter of the roots to be excised cannot be precisely determined until excavation occurs using hand tools. This alignment places the root impact to individual trees, as far away from the trunks as possible.

The root disturbance as a result of the utilities, will occur to the following oak trees in order of their location:

Roots from tree Nos. 1, 2, 093, 232, 233, 233a will travel mostly in transverse directions to the driveway alignment crossing the area of the proposed utility trench. In its new location Tree 99 will not be affected by the utility trenching.

The following procedure is designed to provide an organized plan for the work required by the VCFD to construct the driveway. The work includes brush clearance designed to minimize root damage to the trees.

1. First, displace the local root duff on grade and loose soil by hand digging.
2. Clear plants back ten 10' feet away from each side of the proposed driveway improvements.
3. Locate the defined corridor with offset survey stakes. The stakes should be driven deep for their protection.
4. By survey, define the centerline of the utilities. Identify the angular alignment of the utility trench. Mark the width of the trench with temporary off-set stakes. Identify the stakes with a painted color.
5. The excavation should not exceed four (4) feet in width. The outer corridor stakes must be maintained over the construction period.
6. Hand trench to the required depth required by each utility, cutting roots to the full width of the proposed trench.

It will be difficult to determine which roots are attached to what tree. Based upon our field experience, roots this far from a tree trunk, cut at these required distances from the tree trunk, should be in the range of one to Three inches in diameter.

ROOT TREATMENT

Any kind of trenching inside of the tree protection zone requires that direct instructions be given regarding the work. The work must be executed in the presence of the arborist or their designated person.

1. Affected roots should be sawcut at a diagonal with the cut surface facing downward. This statement relies on the evidence documented from the Ben Johnson Scientific Study, authored by us, conducted within the North Ranch of Thousand Oaks, published in 1979.
2. Cut Roots, at the time of excision, must be immediately treated with Ailette Fungicide.
3. Roots that are not excised must be bridged over and must be covered with a localize sheet/layer of PVC followed by a two to four-inch block of Styrofoam. The purpose is to prevent hard surfaces from resting on viable roots potentially causing damage to bark covering the root. This is important when excavating footings for structures, and/or poured in place concrete over a viable root surface. In this case, separating the concrete from the roots with a four-inch block of Styrofoam is required.

SPECIFIC TREE DATA

The subject trees presented herein are not presented numerically but are listed in the order that they were observed, when traveling from the Skelton Canyon Circle. entry to the future dwelling and beyond. We have tagged and retagged these trees since our first visit in 2019. The tags have been vandalized over time.

TREE NO. 1 (tagged) Off-Site
This tree is Heritage size and presents a hazard of failure.

SPECIES

	Size (dbh)	Health	Appearance
<u><i>Quercus agrifolia</i></u>	55"	C-	B
Coast Live Oak			

TREE DATA:

See attached Tree Inventory Form

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

Tree No.1 is a mature specimen of the species displaying a moderate level of vigor with yearly growth extension present. It is located off-site. There is a co-dominant union beginning at four feet above grade and continuing to a height of eight feet.

Additionally, a significant broken branch wound can be seen, high on the east side of the tree leaving a ragged tear visible. Another branch has fallen to the south of the tree These branches should be appropriately pruned.

On the north-west side of the tree, near the ground, there is another very large open cavity that will be visible, resulting from past branch failure. It begins approximately 5' above grade, extending vertically for eight (8) feet and has a width of two (2) feet. This wound displays major decay and dead wood extending beyond the cavity. Looking into the cavity one can see the central bole of the tree is missing, having been consumed by saprophytes. Also, on the south side. a lesion is present. It travels from grade, upward two and one half (2.5) feet. It is approximately 8" wide. This lesion also has visible rot and exudation. Considering the degree of rot in the bole of this tree it presents a significant risk of failure in the future. HOA should be notified.

The wounds that have occurred from the branch failures. should be treated in the following way:

1. Clean the wound margin of dead tissue and loose debris.
2. Where possible remove the dead wood extending out of the open cavity.
3. In doing so, avoid creating any new wound, thus preparing the wound for natural closure over time.
4. Tack a sheet of small wire mesh to enclose the cavity preventing the collection of leaf matter into it.

IMPACT:

A concrete drainage swale and a low curb wall, to support the driveway, will extend through the Protected Zone of the tree (see Civil Drawings for location). There will be encroachment from the driveway, into the protected zone of tree No. 1.

The entrance driveway will pass Tree No. 1 with the edge of the wall. The driveway surface will be constructed of pervious pavers. The driveway will be approximately five (5) feet from the tree trunk. The resulting impact, from utility excavation, will occur eleven (11) feet from the tree trunk. The vertical placement, and excavation for each utility will vary. The low wall and concrete curb, on this side of the drive, will be heavily reinforced with steel bars to prevent future damage from expanding roots.

One 4" branch and one 6" branch will need to be pruned for fire department vehicular clearance.

PRUNING & ENCROACHMENT:

The percentage of encroachment has been estimated, as the tree is situated within a forest, under the canopy of other trees.

ENCROACHMENT

Dripline area	*2,000 sf
Encroachment	701 sf
Percentage	.35 %

*We assumed this square footage based upon the dripline area of Tree No. 7.

See Pruning & Encroachment Schedule.

RECOMMENDATION:

1. Consider this tree for removal.
2. Clear brush back ten (10) feet from the edge of the proposed driveway. Install protective fencing as required by the Oak Tree Guidelines.
3. All excavation work must be performed using only hand tools. Earth spoils from excavation shall not be placed within the protection zone of any oak tree.
4. Approved Pruning must be performed by an ISA Certified Arborist.

5. Driveway section should be constructed upon natural grade with grading depth to be limited to a 6" vertical cut.

See STATEMENT OF DESIGN INTENT FOR DRIVEWAY.

TREE NO. 2 (tagged)
This tree is of Heritage size

SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	9", 8", 25", 12"	B	B
Coast Live Oak			

TREE DATA:
See attached Tree Inventory Form

LOCATION:
See Tree Location Map enclosed.

DESCRIPTION:
Tree No.2, a mature specimen of the species. It presents a high level of vigor with abundant yearly growth extension. Low scaffold branches extend in a south-east direction with the branch growth and the leaf skirt extending downward to natural grade preventing through access for the driveway. The bark of one branch on the southwest side is exfoliating from a continuous lesion with rot underneath.

IMPACT:
The driveway will pass tree No. 2 with the wall approximately three (3) feet west of the tree trunk. As a result of excavation for installation of utilities serving the site, root impact will occur. Utility excavation will pass eleven (11) feet from the tree trunk.

There will need to be one 6" branch and one 10" branch that will need to be pruned for vehicular access.

PRUNING & ENCROACHMENT:
The percentage of encroachment has been estimated, as the tree is situated within a forest, under the canopy of other trees.

ENCROACHMENT	
Dripline area	*2,000 sf
Encroachment	701 sf

Percentage 35 %

*We assumed this square footage based upon the dripline area of Tree No. 7.

See Pruning & Encroachment Schedule.

RECOMMENDATION:

1. Clear brush back ten (10) feet from the edge of the proposed driveway.
2. Install protective fencing as required by the Oak Tree Guidelines.
3. All excavation work must be performed using only hand tools³. Earth spoils from excavation shall not be placed within the protection zone of any oak tree.
4. Approved Pruning must be performed by an ISA Certified Arborist.
5. Driveway section should be constructed upon natural grade with grading depth to be limited to a 6" vertical cut.
6. Driveway section should be constructed upon natural grade with grading preparation to be limited to a 6" vertical cut.

See STATEMENT OF DESIGN INTENT FOR DRIVEWAY.

TREE NO. 99	(tagged)		
SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	4"	A	A
Coast Live Oak			

TREE DATA:

See attached Tree Inventory Form

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

This is an immature specimen growing within the Protected Zone of Tree No. 2. It lies within the driveway corridor and cannot remain at that location. It is of size, that can easily be transplanted to another location.

IMPACT:

The Oak Tree Ordinance requires that any oak that is removed, by approval of the city, be replaced at a ratio of 3:1. While Tree No.99 will be relocated on site, it is still considered as a removal by the Guidelines.

Remove / transplant Tree No. 99. See Protected Tree Map for the new location on the west side of the driveway between Trees 2 and 4. The location of this transplanted tree is shown on the plan between Tree No. 1 and 2.

PRUNING & ENCROACHMENT:

Remove tree. See Pruning & Encroachment Schedule.

See STATEMENT OF DESIGN INTENT FOR DRIVEWAY.

TREE No. 4	(tagged) REMOVE		
SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	Multiple		
Coast Live Oak	Regenerating stump	D	D

TREE DATA:

See attached Tree Inventory Form

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

Tree No. 4 is the stump of an old specimen tree resulting from its past failure. It displays several small volunteer trunks that are dead, and several live trunks alive that are regenerating from the old tree.

A very large Valley Oak, on the neighboring site failed, landing partly upon the Ferruzza site, causing damage to this tree. The damage to the Ferruzza tree occurred to the dead stumps protruding directly from the old tree root crown. The fallen tree has been removed.

IMPACT:

This tree conflicts with the driveway and will need to be removed.

RECOMMENDATION:

Remove tree.

See STATEMENT OF DESIGN INTENT FOR DRIVEWAY.

TREE No. 093	(retagged)		
(Formally No. 98)	This tree is of Heritage size.		
SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	40"	B	B

Coast Live Oak

TREE DATA:

See attached Inventory form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

Tree No. 093 is a mature specimen of the species presenting a high level of vigor, with abundant new yearly growth extension. One large branch extends in a southwesterly direction turning upward near the location of the proposed wall the borders the driveway.

MPACT:

The driveway will pass tree No. 093 with the edge approximately five (5) feet from the tree trunk. This excavation occurs within the Critical Root Plate of the tree.

The finish surface of the driveway will, as shown, be two (2' +/-) above the grade of the tree. The void between the finish surface and natural grade will be filled with road base.

Root impact will also occur as a result of excavation for installation of utilities serving the site. Excavation will occur twelve (12) feet from the tree trunk.

Pruning will consist of approximately four branches at three inches (4@3") and one branch at six inches (1@6").

PRUNING & ENCROACHMENT:

ENCROACHMENT

Dripline area	2,889 sf
Encroachment	582 sf
Percentage	21 %

See Pruning & Encroachment Schedule

RECOMMENDATION:

1. Clear brush back ten (10) feet from the edge of the proposed driveway.
Install protective fencing as required by the Oak Tree Guidelines.
2. Install protective fencing as required by the Oak Tree Guidelines
3. All excavation work must be performed using only hand tools.

4. Earth spoils from excavation shall not be placed within the protection zone of any oak tree.
5. Approved pruning must be performed by an ISA Certified Arborist.
6. Driveway section should be constructed upon natural grade with grading preparation to be limited to a 6" vertical cut.

See STATEMENT OF DESIGN INTENT FOR DRIVEWAY.

TREE No. 232	(tagged)		
	This tree is of Heritage size		
SPECIES	Size (dbh)	Health	Appearance
<u>Quercus lobata</u>	30"	B	B
Valley Oak			

TREE DATA:
See attached Tree Inventory Form.

LOCATION:
See Tree Location Map enclosed.

DESCRIPTION:
Tree No. 232 is a mature specimen of the species presenting a high level of vigor, with abundant new yearly growth extension. There are two broken branch stubs, with significant rot visible. Low scaffold branches extend in a northeasterly direction, interfering with the driveway, and will require pruning for vehicle clearance.

A large old pruning wound is located high on the south side of the trunk. It measures approximately two-foot (2) across a circular area. Surficial woodpecker damage is present along with significant dead wood.

IMPACT:
The driveway will pass tree No. 232 with the edge of the driveway, approximately, nine (9) feet from the tree trunk. The finish surface of the driveway will be two (2' +/-) above the grade of the tree. The void between the finish surface and natural grade will be filled with road base.

Root impact will occur as a result of excavation for installation of utilities serving the site. Excavation for utilities will occur seventeen (17) feet from the tree trunk. Porous granular road base will be utilized to backfill from ground level the driveway

surface, held in place gravity wall constructed with Belgard dry stack concrete units.

We estimate the pruning will consist of five branch at two inches (5@2") and one branch at four inches (1@4").

PRUNING & ENCROACHMENT:

ENCROACHMENT

Dripline area	2,067 sf
Encroachment	293 sf
Percentage	0.05%

See Pruning & Encroachment Schedule.

See Pruning & Encroachment Schedule herein.

RECOMMENDATION:

1. Clear brush back ten (10) feet from the edge of the proposed driveway.
2. Install protective fencing as required by the Oak Tree Guidelines.
3. All excavation work must be performed using only hand tools.
4. Earth spoils from excavation shall not be placed within the protection zone of any oak tree.
5. Approved pruning must be performed by an ISA Certified Arborist.
6. Driveway section should be constructed upon natural grade with grading preparation to be limited to a 6" vertical cut.

TREE NO. 7	(tagged)
REMOVE	This tree is of Heritage size.

SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	14", 14", 18", 19"	B	B
Coast Live Oak			

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

Tree No. 7 is a mature specimen of the species presenting a high level of vigor with

abundant new yearly growth extension. A co-dominant union exists between the two major trunks. The leaf skirt descends to the west conflicting with the proposed garage structure.

September 14, 2023

It is not possible to meet and maintain the ten (10) foot offset from the dripline of this tree and the proposed garage. Therefore, the tree must be removed to allow reasonable use of the site.

RECOMMENDATION:

Remove this tree as required by the VCFD to have reasonable use of the site.

See STATEMENT OF DESIGN INTENT FOR DRIVEWAY

TREE NO. 233

(Tagged) Off-Site
Tree is of Landmark size.

SPECIES

Size (dbh)

Health

Appearance

Platanus racemosa

16"

A

A

California Sycamore

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

Tree No. 233 appears healthy and vigorous however, it is deciduous at this time preventing evaluation of its condition. It displays a single trunk standing vertical, and features a high branching structure with some very small branches that descend over the driveway blending with tree No.7.

IMPACT:

The driveway will pass tree No. 233 with the edge of the driveway approximately eighteen (18) feet from the tree trunk. The finish surface of the driveway will, as shown, be four (4' +/-) feet above the grade of the tree. The void between the finish surface and natural grade will be filled with road base.

Utility excavation will occur seventeen (17) feet away from the northerly curb. Porous granular road base will be utilized to backfill from ground level the driveway surface, held in place gravity wall constructed with Belgard dry stack concrete units.

We estimate the pruning to be four branches at two inches(4@2") and one branch at four inches (1@4").

PRUNING & ENCROACHMENT:

ENCROACHMENT

Dripline area	723 sf
Encroachment	59 sf
Percentage	8%

See Pruning & Encroachment Schedule.

RECOMMENDATION:

1. Clear brush back ten (10) feet from the edge of the proposed driveway.
2. Install protective fencing as required by the Oak Tree Guidelines
3. All excavation work must be performed using only hand tools.
4. Earth spoils from excavation shall not be placed within the protection zone of any oak tree.
5. Approved pruning must be performed by an ISA Certified Arborist.
6. Driveway section should be constructed upon natural grade with grading preparation to be limited to a 6" vertical cut.

See STATEMENT OF DESIGN INTENT FOR DRIVEWAY.

TREE NO. 233a	(not tagged)	Off-Site	
SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	36"	B	B
Coast Live Oak			

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

Tree No. 233a appears healthy and vigorous. Low branches descend onto this site over the edge of the proposed driveway.

IMPACT:

The driveway will pass tree No. 233a with the edge approximately 17' from the tree trunk. The finish surface of the driveway will, as shown, be four (4' +/-) above the

grade of the tree. The void between the finish surface and natural grade will be filled with road base.

Minor root impact will occur as a result of excavation for utility installation which occurs twenty-six (26)' from the tree trunk, well outside of the critical root plate.

We estimate pruning to be six branches at two inches 6@2"), one branch at five inches (1@5") and one six-inch branch (1@6").

PRUNING & ENCROACHMENT:

ENCROACHMENT

Dripline area	1,048 sf
Encroachment	59 sf
Percentage	.06 %

See Pruning & Encroachment Schedule.

RECOMMENDATION:

1. Install protective fencing as required by the Oak Tree Guidelines
2. All excavation work must be performed using only hand tools.
3. Earth spoils from excavation shall not be placed within the protection zone of any oak tree.
4. Approved pruning must be performed by an ISA Certified Arborist.
5. Driveway section should be constructed upon natural grade with grading preparation to be limited to a 6" vertical cut.

See STATEMENT OF DESIGN INTENT FOR DRIVEWAY.

TREE No. 51	(tagged) REMOVE		
SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	20"	A	A
Coast Live Oak			

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

Tree No. 51 is a mature specimen of the species presenting a high level of vigor, with abundant new yearly growth extension. Low branches extend to the west with

their growth and the leaf skirt extending downward, to the pad level, laying on the existing building pad. This growth and maintenance of the tree to meet the ten (10) foot setback from the tree dripline, conflicts with the proposed dwelling.

September 14, 2023

It is not possible to meet and maintain the ten (10) foot offset from the dripline of this tree and the proposed dwelling. Therefore, the tree must be removed to allow reasonable use of the site.

RECOMMENDATION:

Remove this tree as required by the VCFD.

TREE Nos. 51A -51G (not tagged)

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

The following seven (7) live oaks are located close to the daylight elevation of the existing building pad between Tree No's. 51 and 53. We did not tag these trees due to the precipitous down slope, and the driplines were estimated. Trees of this size have similar dripline dimensions.

IMPACT:

Four (4) of these seven (7) trees are located above the others as shown on the map. Light pruning will be required on trees 51a, b and c. Tree 51g will require that five branches at three to four inches (5@3-4") be pruned for clearance at the proposed wood deck. The remaining three (3) oaks, 51d, 51e, and 51f are considerably below the others. Due to their size and location, there will be no impact on these oak trees.

September 14, 2023

As shown on the map, four (4) of these seven (7) trees are located east of the other three. The VCFD will require that these four trees be pruned away from the residence. The remaining trees will require light pruning.

This pruning is required to meet ten (10) foot offset, from tree dripline to combustible structures. By agreement, the property owner must maintain this clearance in perpetuity.

March 28, 2024

On March 25, 2024 we accompanied a representative of California Civil Design who surveyed the precise location of these trees and their dripline. The current map shows the newly surveyed data.

BRIEF DESCRIPTION OF THE SEVEN CLUSTERED TREES

Species	Size (dbh)	Health	Appearance
No. 51 a			
<u>Quercus agrifolia</u>	15"	B	B
Coast Live Oak			
No. 51 b			
<u>Quercus agrifolia</u>	8"	B	B
Coast Live Oak			
No. 51 c			
<u>Quercus agrifolia</u>	8"	B	B
Coast Live Oak			
No.51 d			
<u>Quercus agrifolia</u>	9"	B	B
Coast Live Oak			
No. 51 e			
<u>Quercus agrifolia</u>	8", 4"	B	B
Coast Live Oak			
No. 51 f			
<u>Quercus agrifolia</u>	8"	B	B
Coast Live Oak			
No. 51 g			
<u>Quercus agrifolia</u>	8"	B	B
Coast Live Oak			

PRUNING & ENCROACHMENT:

ENCROACHMENT

These trees are in a forest condition.

Tree 51a	
Dripline area	1,000 sf
Encroachment	150 sf (allowance)
Percentage	.15 %

Tree 51b	
Dripline area	400 sf
Encroachment	75 sf
Percentage	19 %

Tree 51c	
Dripline area	400 sf
Encroachment	75 sf
Percentage	18 %

Tree 51g	
Dripline area	600 sf
Encroachment	200 sf
Percentage	34 %

See Pruning & Encroachment Schedule.

RECOMMENDATION:

1. Install protective fencing as required by the Oak Tree Guidelines
2. All excavation work must be performed using only hand tools.
3. Earth spoils from excavation shall not be placed within the protection zone of any oak tree.
4. Approved Pruning must be performed by an ISA Certified Arborist.

TREE NO. 53	Heritage size	Off-Site	
SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	36"	B	B
<i>Coast Live Oak</i>			

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

Tree No. 53 presents a high level of vigor with abundant new yearly growth extension. The tree is located down slope (+-12') below the building pad. Low branches extend to the west.

IMPACT:

A building foundation will be constructed twenty-five (25) feet west of the trunk of this tree. Excavation at the location of this wall could encounter some transport and feeder roots, up to two (2) inches in diameter. These roots will be excised. We anticipate, since the building pad was graded some time ago, that encountering major roots is not likely.

Branch growth and the leaf skirt extends downward, conflicting with a proposed elevated deck attached to the dwelling. We estimate pruning to consist of four to five branches at three to six inches (4-5@3-6").

PRUNING & ENCROACHMENT:

ENCROACHMENT:

Dripline area	2150 sf
Encroachment	623 sf
Percentage	29 %

See Pruning & Encroachment Schedule.

RECOMMENDATION:

1. Install protective fencing as required by the Oak Tree Guidelines
 2. All excavation work must be performed using only hand tools.
 3. Earth spoils from excavation shall not be placed within the protection zone of any oak tree.
 4. Approved pruning must be performed by an ISA Certified Arborist.
-

TREE NO. 52

<i>SPECIES</i>	<i>Size (dbh)</i>	<i>Health</i>	<i>Appearance</i>
<u><i>Quercus agrifolia</i></u>	9"	C+	C+
<i>Coast Live Oak</i>			

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

This mature tree displays a moderate level of vigor expressed by the leaf density and with normal yearly growth extension. It is approximately five (5) feet south of a proposed retaining wall for the pool enclosure and the walk for access.

IMPACT:

A small portion of the proposed concrete access walk and a small corner of the wall enclosure for the pool equipment encroach into the TPZ of this tree. A two (2)

foot modular gravity wall, on a loose gravel footing, will be installed to support the level pad for these improvements. A twelve (12) inches deep footing will be excavated, into the compacted fill, to support the CMU wall enclosure.

PRUNING & ENCROACHMENT:

ENCROACHMENT:

Dripline area	111 sf
Encroachment	20 sf
Percentage	18 %

See Pruning & Encroachment Schedule.

RECOMMENDATION:

1. Install protective fencing as required by the Oak Tree Guidelines
2. All excavation work must be performed using only hand tools.
3. Earth spoils from excavation shall not be placed within the protection zone of any oak tree.

TREE Nos. 54 -56 (tagged)

SPECIES	Size (dbh)	Health	Appearance
No.54			
<u>Quercus agrifolia</u>	7"	B	B
Coast Live Oak			
Pruning:	None required.		
No. 55			
<u>Quercus agrifolia</u>	8"	B	B
Coast Live Oak			
Pruning:	None required.		
No. 56			
<u>Quercus agrifolia</u>	8"	B	B
Coast Live Oak			

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

These three (3) oaks have suffered from prolonged drought. Tree 54 has little

foliage. Tree 55, while also suffering from drought, it has more leaves. Tree 56 suffers less drought, and the leaf density is approximately 50% of normal.

IMPACT:

These are immature (forth stage of maturity) oak trees that will not be impacted. All the proposed work is outside of the protected zone of the trees.

PRUNING:

None

PRUNING & ENCROACHMENT:

None.

RECOMMENDATION:

1. Install protective fencing as required by the Oak Tree Guidelines
2. Fencing need only go around Tree 54. The other two trees are outside of the development area.

TREE NO. 58

(tagged)

This is a Heritage size tree.

SPECIES

Size (dbh)

Health

Appearance

Quercus agrifolia

27", 30"

B

B

Coast Live Oak

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

This is an old age oak tree (6th stage of maturity) residing at the top of slope that descends to a natural drainage course that carries and serves the North Ranch. It has a co-dominant union and displays a good level of vigor with a moderate leaf density. Yearly growth extension is normal. A large branch, on the west side of the tree has fallen leaving a broken branch wound with extensive decay present.

The tree is positioned fifty-six (56) feet southwest of a proposed drainage conveyance pipe serving the site.

PRUNING:

None required.

IMPACT:

There will be no pruning or excavation affecting this tree.

RECOMMENDATION

None. Tree is beyond any site improvements.

TREE NO. 59

(tagged)

Likely the oldest tree in Thousand Oaks.

SPECIES

Size (dbh)

Health

Appearance

Quercus agrifolia

96"

B

B

Coast Live Oak

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

This is likely the oldest tree located in the Conejo Valley. It is of humongous size, truly the Great Grandfather of the Forest well into the 6th stage of maturity. It resides on a slightly sloping topography. This slope descends to a natural drainage course that serves and carries most of the nuisance drainage for the North Ranch. It displays an excellent level of vigor with a normal leaf density. Yearly growth extension is normal. There is some epicormic growth, included bark and co-dominant unions with a water trap on one side, along with some broken branch wounds.

PRUNING:

None required.

IMPACT:

This tree will not be affected by any development to the site.

PRUNING:

None required.

RECOMMENDATION:

None. Tree is beyond any site improvements.

TREE NO. 76 (tagged)
This tree is of Heritage size and likely the oldest oak in Thousand Oaks.

SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	` 27"	A	A
Coast Live Oak			

TREE DATA:
See attached Tree Inventory Form.

LOCATION:
See Tree Location Map enclosed.

DESCRIPTION:
This is immature oak tree residing on a shallow slope that descends to a natural drainage course that carries and serves the North Ranch. It displays a good level of vigor with a g leaf density. Yearly growth extension is normal. The tree is located 25' (+-) southwest of a proposed drainage conveyance pipe serving the site.

IMPACT:
This tree will not be affected by development.

PRUNING:
None required.

RECOMMENDATION:
None. Tree is beyond any site improvements.

TREE NO. 74 (not tagged)

SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	3"	A	A
Coast Live Oak			

TREE DATA:
See attached Tree Inventory Form.

LOCATION:
See Tree Location Map enclosed.

DESCRIPTION:

This is an immature volunteer oak tree residing north of Tree 76.

IMPACT:

This tree will not be affected by development.

PRUNING:

None required.

RECOMMENDATION:

None. Tree is beyond any site improvements.

TREE NO. 74 a (not tagged)

SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	3"	A	A
Coast Live Oak			

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

This is immature volunteer oak tree residing north of Tree 76.

IMPACT:

This tree will not be affected by development.

PRUNING:

None required.

RECOMMENDATION:

None. Tree is beyond any site improvements.

TREE No. 016 (tagged) Off-site
This is a Heritage size tree.

SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	32"	B	B
Coast Live Oak			

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

This tree is in the residing on a moderate slope that descends to a natural drainage course that carries and serves the North Ranch. It displays a good level of vigor with a moderate leaf density. Yearly growth extension is normal.

PRUNING:

None required.

IMPACT:

This tree will not be affected by development.

RECOMMENDATION:

- 1 .Install protective fencing as required by the Oak Tree Guidelines

TREE NO. 017

(tagged) Off-site

This is a Heritage size tree.

SPECIES

Size (dbh)

Health

Appearance

Quercus agrifolia

27"

A

A

Coast Live Oak

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

This is a mature tree residing on a steep descending slope. It displays a good level of vigor with a moderate leaf density. Yearly growth extension is normal.

IMPACT:

Extended lateral branches laying on grade blocking access. One 5" branch will need to be pruned. See pruning and encroachment schedule.

PRUNING & ENCROACHMENT:

ENCROACHMENT:

Dripline area	2000 sf
Encroachment	20 sf
Percentage	.01 %

See Pruning & Encroachment Schedule.

RECOMMENDATION:

1. Install protective fencing as required by the Oak Tree Guidelines

TREE NO. 45 (tagged) Off-site
This is a Heritage size tree.

SPECIES	Size (dbh)	Health	Appearance
<u>Quercus agrifolia</u>	12" , 18"	A	A
Coast Live Oak			

TREE DATA:

See attached Tree Inventory Form.

LOCATION:

See Tree Location Map enclosed.

DESCRIPTION:

This is a mature tree residing on a steep descending slope. It displays a good level of vigor with a moderate leaf density. Yearly growth extension is normal.

IMPACT:

There is no impact to this tree.

PRUNING & ENCROACHMENT:

None

RECOMMENDATION:

None

CONCLUSION

Most of the oak trees upon this site are within a forest providing constant shade upon the natural soil profile below. The ground beneath the trees has been protected against excessive evapotranspiration as a result. This explains why the

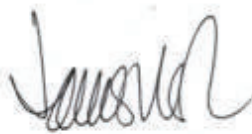
stand of trees has survived the radical loss of a water supply during the extended drought. The oak tree resource in Southern California has suffered more from the prolonged drought than this stand.

In our opinion, with the years of success with oak tree preservation in the North Ranch, under similar conditions, this work can generally be accomplished with controlled impact to the trees if carefully executed. Other than the listed recommendation for removal, we believe that root perturbation or pruning will not be lethal to any tree listed herein. The work described should not produce any prolonged change to this resource. Nor will the longevity of any tree be shortened, as demonstrated with the Ben Johnson Impact Study, conducted in the North Ranch and published in 1979 by the USDA Department of Agriculture.

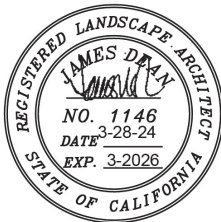
Per the Thousand Oaks Preservation Guidelines, a program to monitor all approved oak tree work is included in this report and must be followed. The oak tree consultant must be notified 48 hours prior to any work commencing under the protection zone of any tree.

With protection to this tree forest, the stand of oaks can be preserved as a natural asset to the community.

Respectfully submitted,



James Dean, RLA
Landscape Architect
License No. 1146



NOTICE OF DISCLAIMER:

Opinions given in this report are those of James Dean, RLA. and are derived from current professional standards based on visual recordings at the time of inspection. This visual record does not include aerial structure or subterranean root inspections, and therefore may not reveal all existing hidden hazards. Records may not remain correct after inspection due to changeable deterioration of the inventoried plant material. James Dean, RLA. supplies no warranty about errors of omission resulting from the lack of communication of facts available only to the requester of this report which are expressed or implied as to the fitness of the urban forests for safe uses. This report is offered for your consideration.

REPORT DEFINITIONS

The following is an explanation of general terminology and other information that may be presented within the body of the Oak Tree Report for the subject site.

TREE MATURITY

There are six stages of growth of maturity for trees as follows:

- | | |
|---------|---|
| Stage 1 | Seedling- just started to grow and cannot make new life |
| Stage 2 | Sapling – generally less than one meter tall |
| Stage 3 | Poles- Trees that have grown vertical before reaching outward |
| Stage 4 | Mature- begins when a tree can manufacture seeds |
| Stage 5 | Old- vertical grow is nearly stopped |
| Stage 6 | Over mature- are the great grandfathers of the forest |

PHYSICAL DESCRIPTION OF OAK TREES

1. Tree number- each tree in the field has been assigned a number that corresponds to a tree location on the "Oak Tree Location Map".
2. Tree number tag- a tree number tag has been placed upon the tree trunk at 4'-6" above grade on the north side of the tree.
3. Species - is the botanical classification of tree that is being evaluated.
4. Number of Trunks- as measured in accordance existing measurements at the time of evaluation.
4. Diameter of Trunks- as measured at 4'-6"' above mean natural grade, existing at the time of evaluation. Diameter is referred to as the trunk diameter at breast height (dbh).
5. Height above grade- is the height above the ground to significant branch structure that restricts movement beneath the branch.
6. Tree Height- is the approximate height of each numbered, evaluated tree.
7. Leaning- is the direction the tree is inclined from the natural vertical position.
8. Shared canopy (sc) describes a condition where leaf canopies of two different trees intertwine within the same aerial space making it difficult to determine the precise dripline of either tree.

PLANT DISEASE AND INSECT VECTORS

Plant disease causes a dysfunction in the physiological processes of a tree and results in a loss of plant vigor.

The three diseases that are of major importance are: Avocado Root Rot (*Phytophthora cinnamomi*) and Oak Root Fungus (*Armillaria mellea*) Butt rot Ganoderma Root Rot (*Ganoderma spp.*), Black BAII Fungus (*Annulohypoxylon thouarsianum*).

Technically speaking all oaks are affected with some disease be it pathogenic or nonpathogenic. However, few are afflicted with significant pathological disease that could have lethal consequences.

Phytophthora is an aggressive pathogen. It is classified as a water mold that causes crown or root rot. This organism can infect and grow readily through uninjured trunk or root bark. It can infect a tree at any time of the year in California.

Armillaria is a weaker pathogen. It generally infects through the roots or root crown of a weakened or stressed tree. Once infected the tree gradually declines and most often the tree dies from girdling.

Ganoderma causes butt rot ultimately affecting the ability of a tree to support itself resulting in mass failure of the root crown.

Hypoxylon Fungus is an opportunist attacking the sapwood of a tree. It enters through existing wounds caused by insects or physical injury destroying the cambium of a tree and ultimately can death to the host.

While the previous specific disease information is important, a long discourse in plant pathology or entomology is not necessarily a prerequisite to develop a basic understanding of the casual effects of disease and insects upon living plant tissue. Disease and insect infection, along with the disruption and damage caused by the alteration of the natural oak tree environment is the main cause in decline of the oak resource in California. Decline is manifested by changes plant vigor. Visible signs and symptoms associated with oak tree decline cause a change in visible appearance.

Oak trees are classified as to their level of vigor. Contrasting a subject tree to an indexing tree that is considered to be a perfect example of the species, the subject tree is rated as to its comparable state of vigor.

VIGOR CLASS

Vigor is the capacity of a tree for growth and survival. A vigorous tree has bright green leaves of large size for the species. The bark is relatively smooth, free from cracks and decay. It will more easily ward off disease and insect attacks and will recover from impacts more quickly than a weak tree.

- A A vigorous tree with a healthy, dense, full leaf canopy, normal yearly growth extension, excellent foliage color, normal leaf size and reasonably free from structural defect.
- B Tree with slightly less vigor, slightly thinner foliage density, and healthy leaf canopy with good color, normal yearly growth extension, and normal leaf size and may have minor structural defects (open cavity exposing decay, etc.)
- C Displays plant stress, level of vigor is average or less, fair to poor leaf size or color, may have a minor level of twig or small branch dieback, exudation, insect infestation and/or exfoliating bark. May have significant correctable structural defect.
- D Trees with severe condition of disease, thin to very-thin leaf canopy with *dwarfed leaf size, poor to non-existent yearly growth extension, poor callusing at wounds, major cavities with decay, major dieback of main stem or scaffolding branches and limbs, exfoliating bark, wounds with exudation, lesions on stems or distorted bark, fungal conks present, epicormic growth (short, twiggy growth along major branches), thin foliage characterized by small leaves which may be discolored, may have mistletoe: little chance of recovery.
- E Dead or almost dead tree.

A basic knowledge of disease and insects should include an understanding of the following information:

PHYSICAL DEFECTS OF OAK TREES

1. Branch Cavities- hollow areas in the trunk or limbs in the upper tree, usually due to the decay of wood.
2. Codominant Trunks – equal in size and relative importance that often creates a hazardous condition due to the expanding growth of both trunks competing for the same physical space. The area between mature trunks is supportive of decay causing organisms
3. Epicormic Growth- excessive growth along main limbs, rather than on twigs.
4. Exudation- the issuance or expelling of liquid, usually from wounds. The cause is generally an agent of a bacteria or fungus.
5. Exfoliating Bark- the flaking off of bark from trunk, branches and/or twigs.
6. Exposed Roots- roots exposed near tree; e.g. in creek bed.
5. Fruiting Bodies- are the outward signs (i.e. mushrooms, conks, etc.) of decay or disease in the interior wood of the tree.
6. Water Pocket- pockets formed at branch crotches that can hold water and possibly weaken the tree's structure (possible hazard).

7. Galls- are an abnormal hypertrophy growth (tumors) on the tree, which may be caused by insects, mites, bacteria, etc.
8. Insect / Mite Damage- are some form of damage to the tree caused by insects or mites (i.e. scale, caterpillars, weevils, borers, mites, etc.)
10. Main stem Dieback- Atrophy or death of healthy main stems from the growing tip back.
11. Oak Pit Scale- has a severe weakening effect on the twigs, frequently resulting in their death. When the scale insect settles on the twigs, a swelling of the twig tissue occurs. So the insect in effect is in a pit formed by the interaction of the twig and the insect; hence, the name.
12. Potential Hazard - any tree may be a hazard to humans, depending on its location and / or health.
13. Thin Foliage- defoliation and twig dieback throughout the canopy.
13. Trunk Cavity- is a hollow area in the trunk, usually due to the decay of wood.
14. Trunk Damage- a damaged area on the trunk, usually due to external force onto the tree. This is classified as a lesion.
15. Twig / Branch Dieback- death of unhealthy twigs from the growing tip back.
16. Weak Crotches- poorly formed branch attachments

AESTHETIC QUALITY

The aesthetic quality of these trees was visually determined from an overall inspection of appearance. The following system was to describe their conditions:

- A. OUTSTANDING
The tree is visually symmetrical having the ideal form and appearance for the species.
- B. AVERAGE
The tree, though non-symmetrical, has an appealing form for the species with very little dieback of foliage or twigs/branches.
- C. POOR
The tree may be intermediate, codominant or suppressed by other trees, may be in debilitated condition with a level of significant decline that affects its visual appearance to a degree that it lacks an overall satisfactory visual quality.

RECOMMENDED TREATMENT

1. Remove Deadwood - if noticeable deadwood, making the tree unattractive, is within the canopy, it should be removed.
2. Remove Wire; etc. - if anything has been physically attached to the tree, it should be removed.

3. Cable / Brace- can extend the time the tree remains healthy, attractive and hazard free.
4. None- no treatment is recommended.
5. Remove Tree - if the tree cannot be saved through any type of treatment, it should be removed with a permit.

REMARKS

(Some other terms that may be used)

1. Bark Beetle Frass- is wood fragments mixed in the insect's excrement.
2. Basal Growth- leaf growth generating from around base of trunk
3. Cankers - are rough swellings with depressed centers resulting in death (atrophy) of tissue that later cracks open and exposes the wood underneath in twigs, branches, and/or trunks.
4. Chlorotic Leaves- leaf veins remain normally green, but the tissue between veins becomes yellow, which is usually caused by nutrient deficiencies.
5. Crowded - is a tree within the canopy of an adjacent tree or canopy.
5. Defoliation- premature leaf drop.
6. Exposed Buttress Roots- soil absent, either all or partial, at basal portion of tree.
7. Heart Rot - decomposition of heartwood (the central portion of a twig / branch/trunk).
8. Lesion –an injury or other change to tissue causing an identifiable change in the appearance when compared to other areas of the same tissue.
9. Mistletoe- is a leafy evergreen perennial parasite with dark green leathery leaves that occur as bunches on the branches.
10. Mottling- leaves have a variegated pattern of green and yellow.
11. Powdery Mildew- are leaves that are covered by a white powdery growth generally when new growth becomes wet for long periods of time; leaves may be distorted, stunted and drop prematurely.
12. Shading Out - defoliation and twig dieback inside the canopy due to the lack of sunlight.
13. Witches Broom - is an abnormal growth cluster of twigs, which may be caused by insects, mites, fungus, etc.

RESPONSE TO ROOT DAMAGE

ROOT DISTURBANCE

The predictable responses to root loss or damage by an oak tree are thought to be as follows:

1. The tree will enter its dormant phase earlier by as much as one month.
2. The tree will abort some amount of leaf canopy to reduce transpiration loss.
3. The individual leaves will curl to reduce transpiration loss.
4. The following season there will be fewer leaves and the new leaves will have less leaf surface.
5. The severed roots could become exposed to root rotting pathogens. It will take several years for a tree to gain closure around a severed root. Each year it will regain some of the lost vigor until it re-establishes itself.

RESPONSE TO PRUNING

PRUNING

Successful healing of pruning wounds to oaks is a function of time, the condition of the tree, size of the roots/branches and the proper execution of the pruning wound. Trees generate new callous tissue growth around a wound to gain closure thereby protecting the inner xylem tissue from invasion of pathogens and insect vectors.

Trees control infection of wounds through a natural process known as Compartmentalization. In this process the tree responds to infection by creating barriers (walls) in all four directions at the margins of the infected tissue. This action delays the advancement of the disease organism until the tree has gained closure at the wound site. Closure of the wound effectively stops or delays the disease process.

Time plays an important role in recovery from pruning wounds to roots and branches. Clearly, smaller root/branch wounds will recover in a short period of time with little consequence to the tree. Rapid closure means that the inner core (Xylem) of the tree is less likely to be exposed to decay causing disease organisms. Larger wounds (10" and greater) could require many years to gain closure. During this period of time more aggressive pathogens can invade the inner wood by successfully breaking down the natural barriers formed by the tree. This allows entry of saprophytic organisms that consume wood and cause decay. Decay within the inner core of the tree is most often not a threat to the life of the tree. Rather, it presents a problem of structural stability.

Psychopathologist Dr. Alex Shigo (deceased) and other notable scientists have demonstrated that smaller pruning wounds are not likely to produce significant areas of decay. Smaller roots/branches of a tree that are properly pruned will gain closure in 5-10 years. After closure small pruning wounds are not a liability to a tree. When pruning to remove small tree roots/branches, and in some cases larger roots/branches, man is immolating the normal and natural process of a tree shedding a root/branch.

PROTECTION NOTES

PROTECTION

Work around oak trees of the site must acknowledge the following:

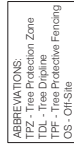
1. Notice: The applicant shall provide a forty-eight (48) hour notice to the City and the applicant's oak tree consultant prior to the start of any approved work within the protected zone of any oak tree.
2. Prior to start of construction: All oak trees shall be fenced at the edge of the protected zone to the extent possible in accordance with the Oak Tree Preservation and Protection Guidelines. The protective fence should remain in place during all phases of construction and should not be removed without notification to the Oak Tree Consultant.
3. Pruning: All approved pruning shall be performed by a qualified arborist under the direction of the applicant's oak tree consultant. The arborist shall use the Pruning Standards of the Western Chapter of the International Society of Arboriculture. No unauthorized pruning is to be performed without prior Permission City Inspector and the Oak Tree Consultant.
4. Excavation: All approved excavation performed within the protected zone of any oak tree shall be performed with hand tools under the direction of the applicant's oak tree consultant.
5. Debris: No construction materials, debris or vehicles shall be stored within the Protected Zone of any oak tree at any time.
6. Planting and Irrigation: Unless specifically approved by the City, no planting or irrigation shall be placed within the protected zone of any oak tree.
7. Mulch: At the completion of construction, the applicant shall place three inches (3") of approved mulch throughout the drip line of each oak tree.
8. Certification: Within ten (10) days of the completion of work, the applicant's oak tree consultant shall submit written forensic certification to the Planning Division. This certification shall describe all work performed and whether such work was performed in accordance with the above permit conditions.
10. Chemicals: No chemical weed killers are used within 100' of any oak tree.
11. Drainage: Direct all drainage water away from the trunk of oak trees. Keep the base of oak trees thoroughly dry.
12. Permit: A copy of the Oak Tree Permit should be kept on file at the site during construction.

TREE INVENTORY




PROTECTED TREE INVENTORY FORM

CLIENT: SITE:		Ferrusa Skelton Canyon		HEIGHT ABOVE GRADE (feet)				MEASURED DRIPLINE (feet)							CONDITION		PHYSICAL DESCRIPTION	
			TRUNK DIAMETER (inches)	NORTH	EAST	SOUTH	WEST	NORTH	NORTHEAST	EAST	SOUTHEAST	SOUTH	SOUTHWEST	WEST	NORTHWEST	APPEARANCE		HEALTH
Tree No.	SPECIES	COMMON NAME															REMARKS	
1	Quercus agrifolia	Coast Live Oak	55	n/a	30	30	8	27	58	49	41	56	sc	sc	36	B	C-	OS Co-dominant; Major cavity; broken branch
2	Quercus agrifolia	Coast Live Oak	9, 8, 25, 12	n/a	sc	3	20	sc	sc	sc	sc	39	20	40	30	B	B	Co-dominant union; Rot underneath sw trunk; large trunk laying on the ground.
99	Quercus agrifolia	Coast Live Oak	4	n/a	n/a	n/a	n/a	8	8	8	8	8	8	8	8	A	A	
4	Quercus agrifolia	Coast Live Oak	multiple: 1 - 6	n/a	n/a	n/a	n/a	15	15	15	15	15	15	15	15	C	C	Regenerating stump
093	Quercus agrifolia	Coast Live Oak	40	10	10	9	40	25	27	sc	sc	38	32	20	19	B	B	(formerly #98) 10" branch decayed, dead wood
232	Quercus lobata	Valley Oak	30	20	15	25	8	19	28	29	36	22	20	20	22	B	B	Two broken branch wounds with rot
45	Quercus agrifolia	Coast Live Oak	12", 18"	n/a	n/a	n/a	n/a	sc	23	27	28	sc	sc	sc	sc	A	A	OS - estimated
7	Quercus agrifolia	Coast Live Oak	2@14, 19, 18	18	12	25	25	sc	21	18	24	27	19	31	35	B	B	Co-dominant union, woodpecker holes, dead wood
233	Platanus racemosa	California Sycamore	16	n/a	n/a	n/a	n/a	sc	sc	sc	sc	sc	sc	sc	sc	A	A	OS - estimated
233A	Quecus agrifolia	Coast Live Oak	36	15	15	8	15	23	25	25	23	22'	23	23	23	A	A	OS - estimated
51	Quercus agrifolia	Coast Live Oak	20	12	15	0	0	sc	27	35	30	37	27	35	28	A	A	Low branching' dead wood; broken branch wound
51a	Quercus agrifolia	Coast Live Oak	15	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	20	sc	A	A	Not tagged due to slope - In a forest condition
51b	Quercus agrifolia	Coast Live Oak	8	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	18	sc	A	A	Not tagged due to slope - In a forest condition
51c	Quercus agrifolia	Coast Live Oak	8	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	18	sc	A	A	Not tagged due to slope - In a forest condition
51d	Quercus agrifolia	Coast Live Oak	9	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	A	A	Not tagged due to slope - In a forest condition
51e	Quercus agrifolia	Coast Live Oak	8, 4	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	A	A	Not tagged due to slope - In a forest condition
51f	Quercus agrifolia	Coast Live Oak	8	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	A	A	Not tagged due to slope - In a forest condition
51g	Quercus agrifolia	Coast Live Oak	8	sc	sc	sc	sc	sc	sc	sc	sc	sc	sc	18	sc	A	A	Not tagged due to slope - In a forest condition
53	Quercus agrifolia	Coast Live Oak	36	14	n/a	12	15	38	sc	sc	sc	sc	40	45	37	A	A	OS
52	Quercus agrifolia	Coast Live Oak	9	n/a	n/a	n/a	n/a	20	15	sc	sc	sc	10	10	10	C+	C+	Drought stress, epicormic growth
54	Quercus agrifolia	Coast Live Oak	7	n/a	n/a	n/a	n/a	15	15	15	15	15	15	15	15	C-	C-	Epicormic growth
55	Quercus agrifolia	Coast Live Oak	8	n/a	n/a	n/a	n/a	12	12	12	12	12	12	12	12	C	C	Regenerating
56	Quercus agrifolia	Coast Live Oak	8	n/a	n/a	n/a	n/a	12	12	12	12	12	12	12	12	B	B	Regenerating
58	Quercus agrifolia	Coast Live Oak	27, 30	15	0	sc	0	30	35	39	s/c	35	22	12	15	B+	B+	minor water trap, co-dominant union, broken branch wound regenerating, large cavity on south side
59	Quercus agrifolia	Coast Live Oak	96	25	20	30	15	s/c	30	40	s/c	30	40	37	35	B+	B+	Epicormic growth, included bark, broken branch wounds, co-dominant unions, water trap on south side
74	Quercus agrifolia	Coast Live Oak	3	n/a	n/a	n/a	n/a	sc	sc	sc	sc	sc	sc	sc	sc	A	A	Not tagged - small volunteers north of Tree 76
74a	Quercus agrifolia	Coast Live Oak	3	n/a	n/a	n/a	n/a	sc	sc	sc	sc	sc	sc	sc	sc	A	A	Not tagged - small volunteers north of Tree 76
76	Quercus agrifolia	Coast Live Oak	27	9	n/a	25	15	32	sc	25	28	32	27	23	32	A	A	
017	Quercus agrifolia	Coast Live Oak	27	n/a	35	7	n/a	35	sc	sc	sc	sc	sc	sc	sc	A	A	OS
016	Quercus agrifolia	Coast Live Oak	32	22	35	35	sc	40	sc	40	sc	40	sc	sc	sc	A	A	OS - Leans heavily to the northeast
Abbreviations:																		
OS	Off Site																	
sc	shared canopy																	
n/a	not applicable																	

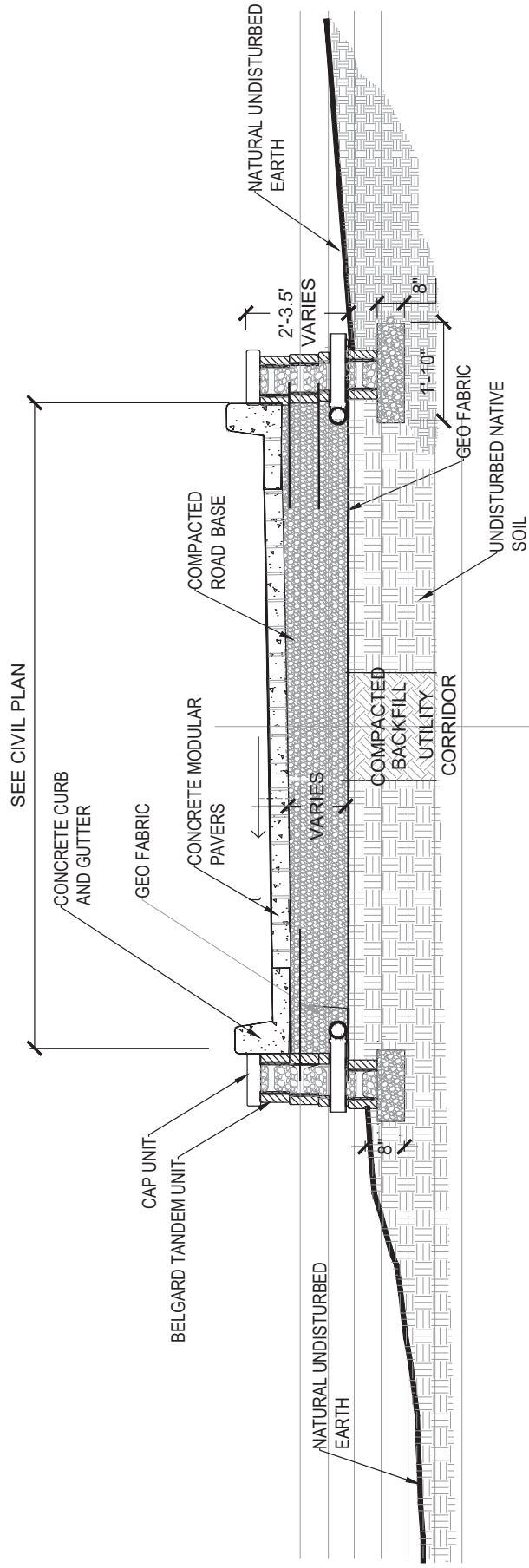
TREE LOCATION MAP



LEGEND OF SYMBOLS

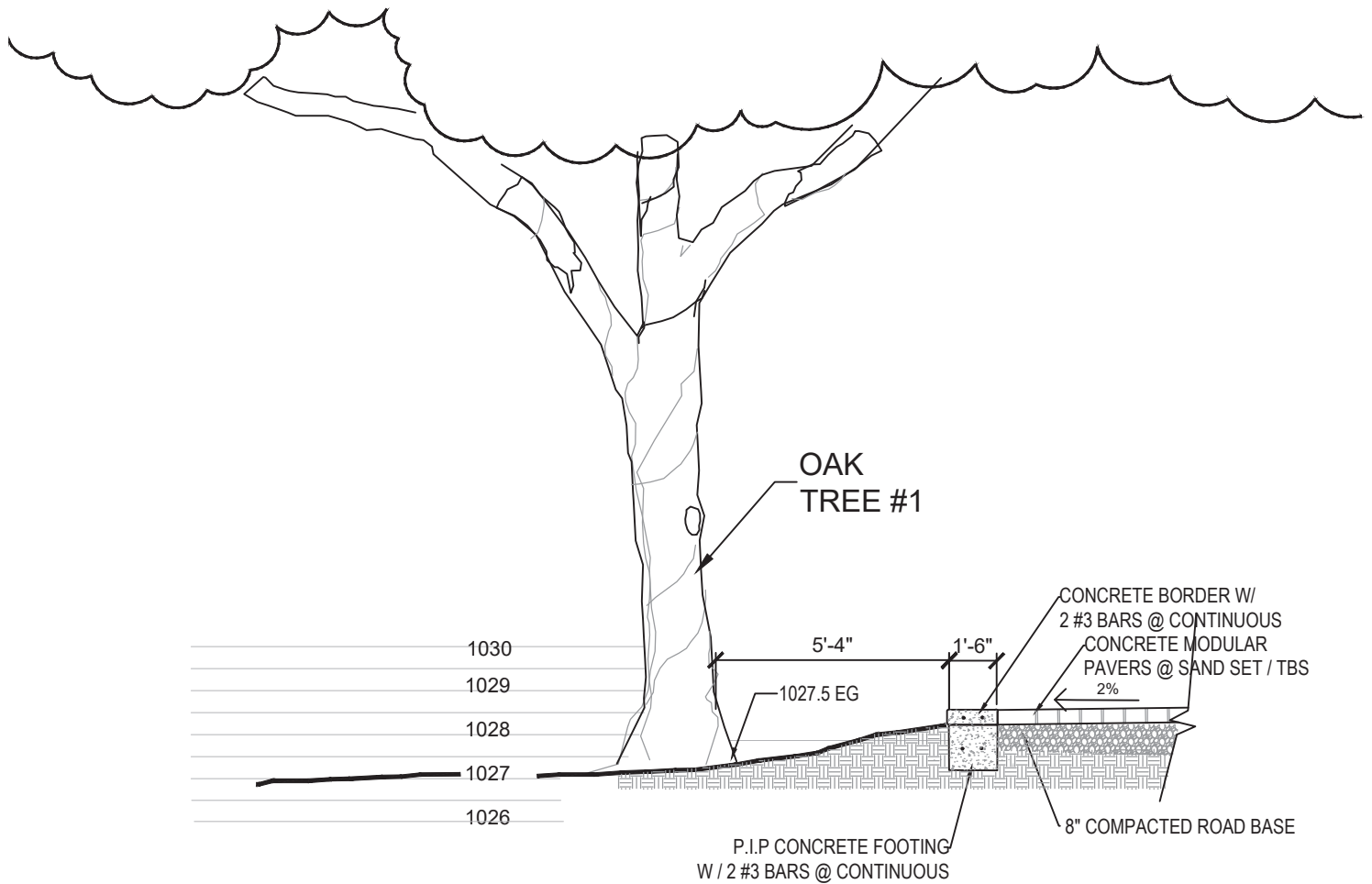
	EXISTING LOCATION OF TREE #99
	POSITION OF RELOCATED TREE #99
	PROTECTED TREE TO BE REMOVED

SECTIONS



CROSS SECTION OF DRIVEWAY-TYPICAL

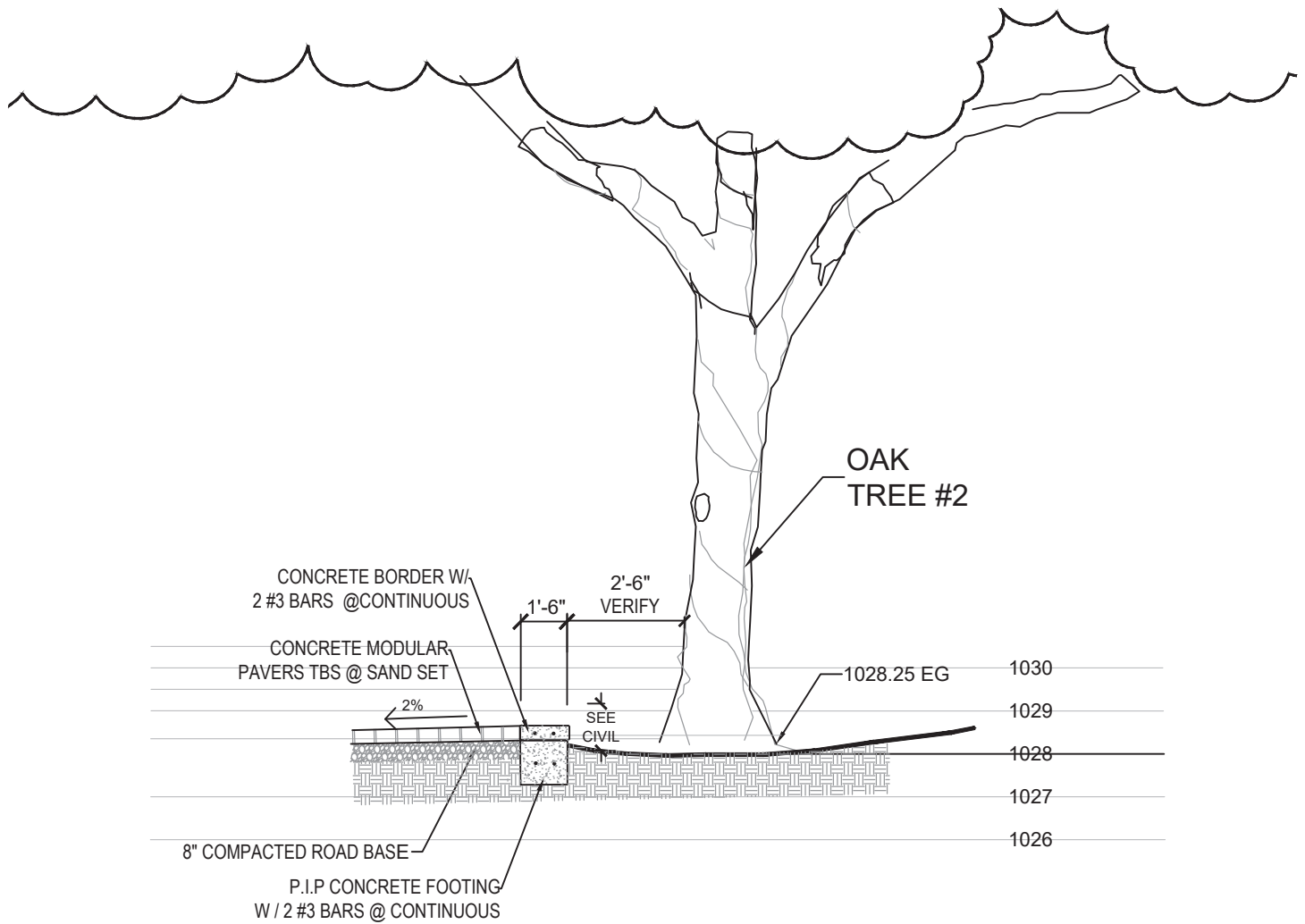
SCALE 1/2"=1'-0"



NOTE: ELEVATIONS SHOWN
HEREON ARE INTERPOLATED
AND NOT FROM A FIELD
INSTRUMENT SURVEY.

TREE NO. 1

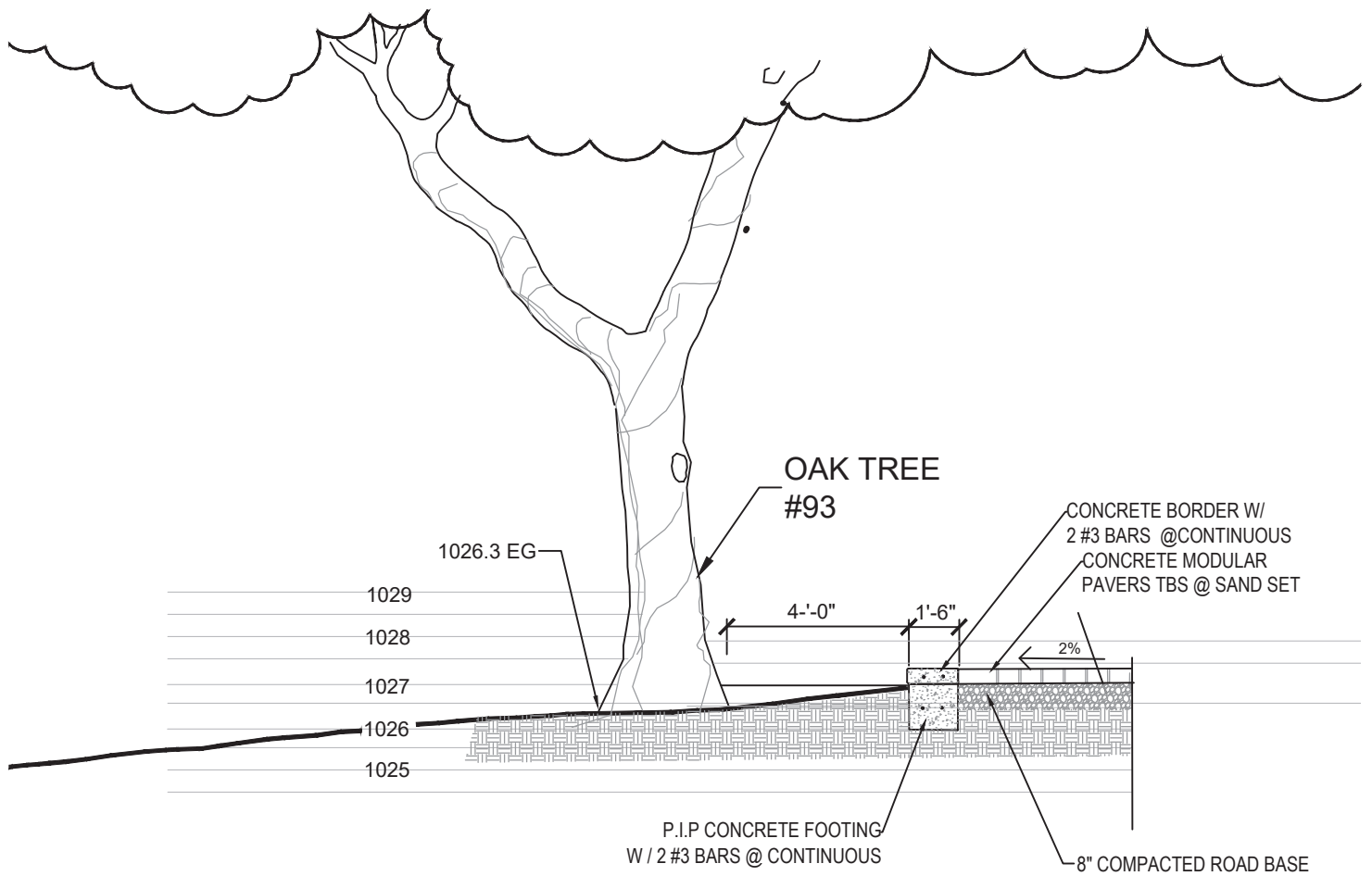
SCALE $\frac{1}{4}"=1'-0"$



NOTE: ELEVATIONS SHOWN
HEREON ARE INTERPOLATED
AND NOT FROM A FIELD
INSTRUMENT SURVEY.

TREE NO. 2

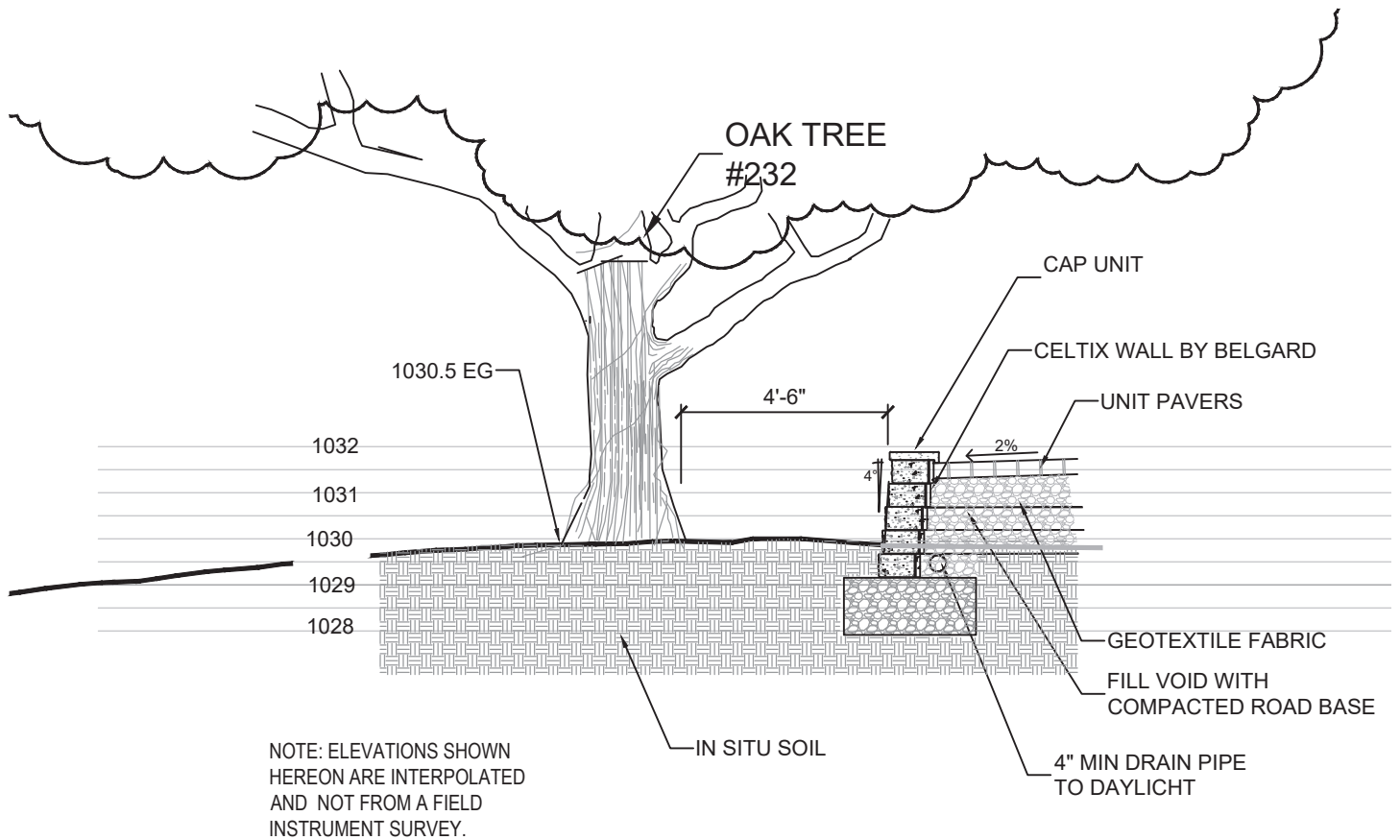
SCALE $\frac{1}{4}"=1'-0"$



NOTE: ELEVATIONS SHOWN
HEREON ARE INTERPOLATED
AND NOT FROM A FIELD
INSTRUMENT SURVEY.

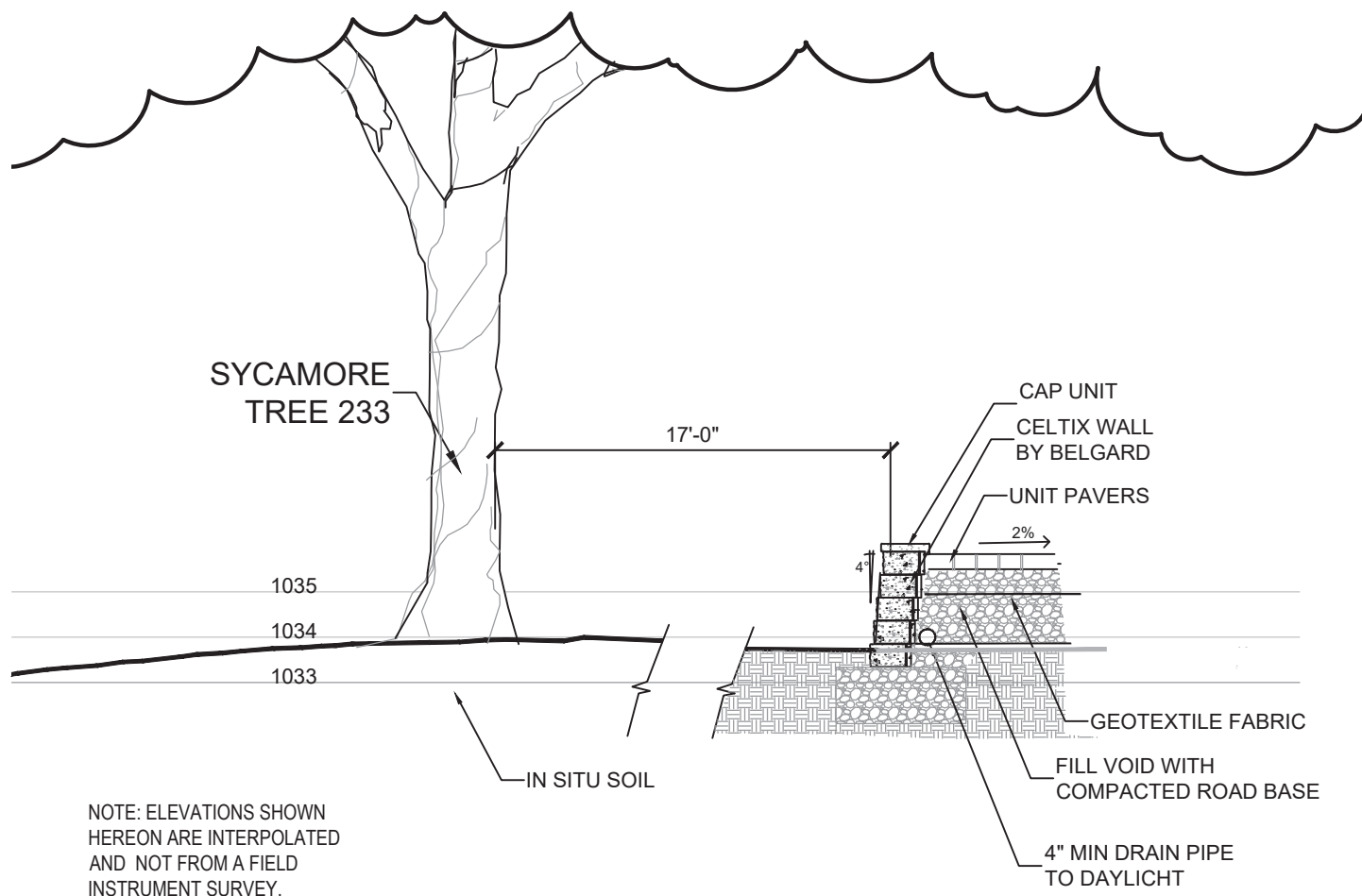
TREE NO. 93

SCALE $\frac{1}{4}"=1'-0"$



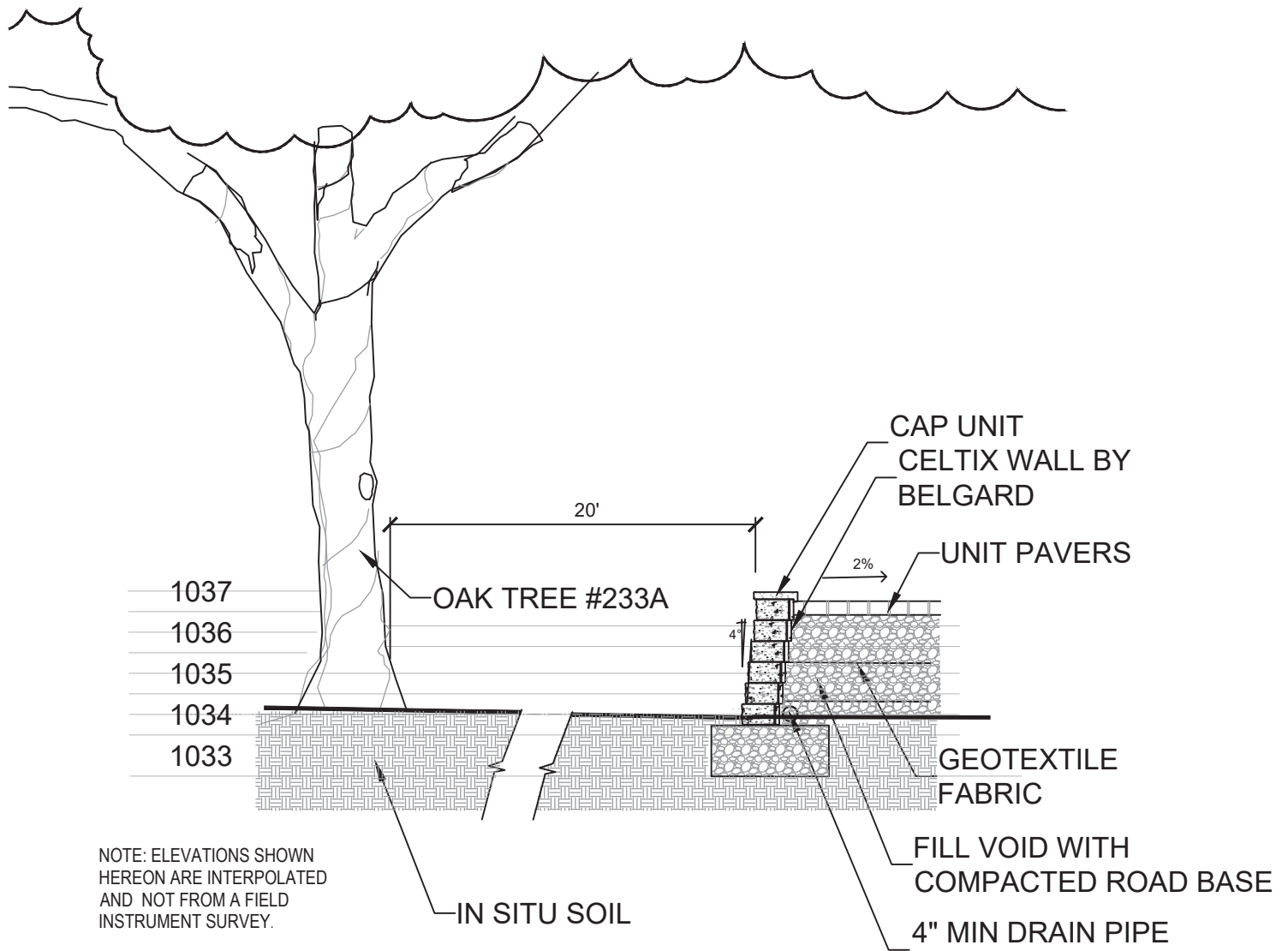
TREE NO. 232

SCALE $\frac{1}{4}"=1'-0"$



TREE NO. 233

SCALE $\frac{1}{4}"=1'-0"$



TREE NO. 233a

SCALE $\frac{1}{4}" = 1'-0"$

PRUNING & ENCROACHMENT SCHEDULE

PRUNING & ENCROACHMENT SCHEDULE

Tree No.	Branches Cut	Total SF Area of Tree	Area of Encroach Per Tree Square Feet	Encroachment Percentage
1	1@4", 1@6"	2000	701	0.35
2	1@6", 1@10"	2000	701	0.35
99	Remove & Transplant			
4	Remove tree	0	0	
93	4@3", 1@ 6"	2889	582	0.21
232	5@2", 1@4"	2067	293	0.15
7	Remove tree	0	0	
233	4@2", 1@4"	723	59	0.08
233A	6@2", 1@5", 1@6"	1048	59	0.06
51	Remove tree	0	0	
51a	4@2-3"	1000	150	0.15
51b	clean-up pruning	400	75	0.19
51c	clean-up pruning	400	75	0.19
51g	5@3-4"	600	200	0.34
53	4-5@3-6"	2150	623	0.29
52	0	111	20	0.18
17	1@5"	2000	20	0.01

MONITORING PROGRAM

PROTECTED TREE MONITORING PROGRAM

The specification for this requirement is as follows Per the City of Thousand Oaks Guidelines for tree preservation:

Guideline V.A. 1 - Oak Tree Preservation Consultant

The services of an Oak Tree Preservation Consultant are made necessary by conditions of various permits issued by the City of Thousand Oaks. The importance of the consultant to the developer/property owner is clear from the requirements listed in this resolution. From the City's perspective it is both necessary and critical that the developer/property owner identify the consultant of record and allow them the latitude to perform their duties in a manner whereby they will be able to certify work as required by this resolution. Consequently, the developer/property owner must not fail to provide their consultant with a forty-eight (48) hour advance notice before commencing any authorized work within the protected zone of oak trees. Moreover, it is mandatory that the developer/property owner notify the Community Development Department in writing within five (5) days of terminations and changes in their oak tree preservation consultant of record.

Guideline V.A. 2 – Forty-Eight (48) Hour Notice

The property owner or his designated representative is required to provide written notice to the Community Development Department and his oak tree preservation consultant forty-eight (48) hours before beginning any work within the protected zone of an oak tree. Written notice shall not absolve nor preclude the property owner from the requirement for on-site direction and supervision by the owner's oak tree consultant.

Guideline V.A. 3 – On-Site Supervision

All work conducted within the protected zone of the oak tree unless otherwise listed as exempt by Title 5, Chapter 14 of the Municipal Code or these Guidelines, will be performed in the presence of the applicant's oak tree preservation consultant.

PHOTOGRAPHS



TREE 1



CLOSE UP - TREE 1



CLOSE UP - TREE 1



CLOSE UP - TREE 1



TREE 2



TREE 2 - CLOSE UP



TREE 016



TREE 017



TREE 7



OFF SITE - TREE 233 & 233a behind it



TREE 51



TREE 52



TREES 51A - 51G NOT TAGGED



TREE 45



TREE 233A - OS - NOT TAGGED



TREE 54



TREE 55



TREE 56



TREE 58



TREE 59



TREE 74



TREE 76



TREE 77 (untagged)-OFF SITE



TREE 99



TREE 093



TREE 4



TREE 232