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## Arborist Report

Santa Lucia Preserve Lot #189  
16 Potrero Trail  
Carmel, CA 93923  
APN# 239-111-003



Inspection Date:  
June 29, 2021

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contractors license # 755989  
certified arborist WC ISA #623  
certified tree risk assessor

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## Assignment

It was our assignment to physically inspect trees in the survey area based on a topographic map provided by the design team. We were to map, tag and compile data for each tree and write an inventory/survey report documenting our observations.

## Summary

This survey provides a numbered map and complete and detailed information for each tree surveyed. There are sixty-six (66) trees included in this report with sixty-three (63) trees protected under the County of Monterey's tree protection ordinance. During our survey, eighteen (18) trees were rated "A" condition, thirty-five (35) trees were rated "B" condition and thirteen (13) trees were rated "C" condition.

A - Retain, condition warrants long-term preservation.

B - Preservable, but may not be worthy of extensive effort or design accommodation.

C - Remove due to existing condition, structure and/or construction limits.

## Discussion

All the trees surveyed were examined and then rated based on their individual health and structure according to the table following. For example, a tree may be rated "good" under the health column for excellent/vigorous appearance and growth, while the same tree may be rated "fair/poor" in the structure column if structural mitigation is needed. More complete descriptions of how health and structure are rated can be found under the "Methods" section of this report. The complete list of trees and all relevant information, including their health and structure ratings, their "protected/significant" status, a map and recommendations for their care can be found in the data sheet that accompanies this report.

<b><u>Rating</u></b>	<b><u>Health</u></b>	<b><u>Structure</u></b>
<b>Good</b>	excellent/vigorous	flawless
<b>Fair/good</b>	no significant health concerns	very stable
<b>Fair</b>	showing initial or temporary disease, pests, or lack of vitality. measures should be taken to improve health and appearance.	routine maintenance needed such as pruning or end weight reduction as tree grows
<b>Fair/poor</b>	in decline, significant health issues	significant structural weakness(es), mitigation needed, mitigation may or may not preserve the tree
<b>Poor</b>	dead or near dead	hazard

## Tree Disposition Categories

Each tree onsite has been categorized for its suitability for preservation relative to its existing condition. Factors such as tree health, condition, age, planting location, species, and structure are all considered to determine if each tree is suitable for preservation. Each tree in the survey (Tree Data Table) has been assigned one of the following categories:

- A - Retain, condition warrants long-term preservation.
- B - Preservable, but may not be worthy of extensive effort or design accommodation.
- C - Remove due to existing condition, structure and or construction limits.

If trees with poor structure or less than ideal conditions are retained, they may require further assessments, monitoring, access restrictions, maintenance, or eventual removal. More thorough conversations about impacts and specific preservation plans can be reported as the project evolves.

## Survey Methods

The trunks of the trees are measured using an arborist's diameter tape at 48" above soil grade. In cases where the main trunk divides below 48", the tree is measured at the point where the trunks divide. In these cases, the height of that measurement is given in the note's column on the attached data sheet. The canopy height and spread are estimated using visual references only.

The condition of each tree is assessed by visual observation only from a standing position without climbing or using aerial equipment. No invasive equipment is used. Consequently, it is possible that individual tree(s) may have internal (or underground) health problems or structural defects, which are not detectable by visual inspection. In cases where it is thought further investigation is warranted, a "full tree risk assessment" is recommended. This assessment may be inclusive of drilling or using sonar equipment to detect internal decay and include climbing or the use of aerial equipment to assess higher portions of the tree.

The health of an individual tree is rated based on leaf color and size, canopy density, new shoot growth and the absence or presence of pests or disease.

Individual tree structure is rated based on the growth pattern of the tree (including whether it is leaning); the presence or absence of poor limb attachments (such as co-dominant leaders); the length and weight of limbs and the extent and location of apparent decay. For each tree, a structural rating of fair or above indicates that the structure can be maintained with routine pruning such as removing dead branches and reducing end weight as the tree grows. A fair/poor rating indicates that the tree has significant structural weaknesses and corrective action is warranted. The notes section for that tree will then recommend a strategy/technique to improve the structure or mitigate structural stresses. A poor structural rating indicates that the tree or portions of the tree are likely to fail and that there is little that can constructively be

done about the problem other than removal of the tree or large portions of the tree. Very large trees that are rated Fair/Poor for structure AND that are near structures or in an area frequently traveled by cars or people, receive an additional \*\*CONSIDER REMOVAL" notation under recommendations. This is included because structural mitigation techniques do not guarantee against structural failure, especially in very large trees. Property owners may or may not choose to remove this type of tree but should be aware that if a very large tree experiences a major structural failure, the danger to nearby people or property is significant.

### Survey Area Observations

The property is in the Santa Lucia preserve and is an undeveloped lot that was surveyed with the initial conceptual site plan taken into consideration. The surveyed area sloped down from the south end of the property to the northern boundary. The trees on this property mainly consist of mature Coast live oaks (*Quercus agrifolia*), Madrones (*Arbutus menziesii*) and Coast redwoods (*Sequoia sempervirens*). There are a few juvenile trees of the same species at the perimeter of the property.

### Tree Health on this Property

Generally, the health of the trees in the survey area ranges from good to fair with only one tree rated poor health. This property is still in its natural state and would benefit from regular maintenance and irrigation. Individual issues and recommendations for each tree are listed under the "Notes" column on the accompanying data sheet.

### Tree Structure on this Property

Ideally, trees are pruned for structure when young and are properly maintained to reduce end-weight as they grow. This practice prevents excessively long, lateral branches that are prone to breaking off due to weight or wind. As mentioned above, this property is still in its natural state and would benefit from regular maintenance and irrigation. The structure rating on all trees in the surveyed area range from fair/good to poor.

### Recommended Removals Based on Health/ Structure/Species

Details of each individual tree are located on the attached Survey Data table.

#### Recommended Protected Removals (Permit required for removal)

- Tree #1 is a Coast live oak (*Quercus agrifolia*) with a DBH of 26.5"
- Tree #16 is a Coast live oak (*Quercus agrifolia*) with a DBH of 15" at 3.5'
- Tree #40 is a Coast live oak (*Quercus agrifolia*) with a DBH of 7"
- Tree #43 is a Coast live oak (*Quercus agrifolia*) with a DBH of 6.5"
- Tree #47 is a Coast live oak (*Quercus agrifolia*) with a DBH of 8"
- Tree #48 is a Coast live oak (*Quercus agrifolia*) with a DBH of 14.5" at 3'
- Tree #49 is a Coast live oak (*Quercus agrifolia*) with a DBH of 8"

**Tree #51** is a Coast live oak (*Quercus agrifolia*) with a DBH of 9" & 6.5"  
**Tree #55** is a Coast redwood (*Sequoia sempervirens*) with a DBH of 7"  
**Tree #56** is a Coast live oak (*Quercus agrifolia*) with a DBH of 34"  
**Tree #58** is a Coast live oak (*Quercus agrifolia*) with a DBH of 18"  
**Tree #60** is a Coast live oak (*Quercus agrifolia*) with a DBH of 16"

**Recommended Unprotected Removals** (No permit required)

**Tree #39** is a Coast live oak (*Quercus agrifolia*) with a DBH of 6"

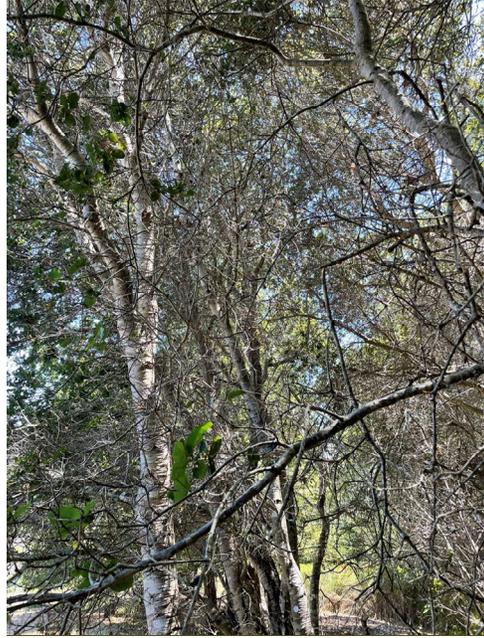
**Site Images**



**Tree #1**



**Tree #16**



**Tree #40**



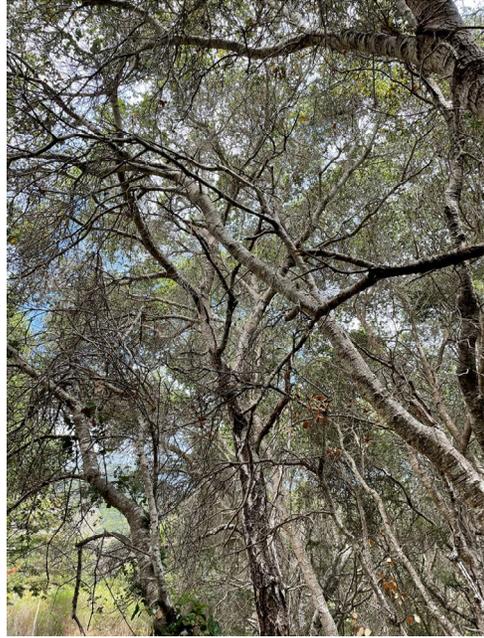
**Tree #43**



**Tree #47**



**Tree #48**



**Tree #49**



**Tree #51**



**Tree #55**



**Tree #60**

## **Local Regulations Governing Trees**

### **Tree Regulations**

No oak, madrone or redwood tree six inches or more in diameter two feet above ground level shall be removed in the Carmel Valley Master Plan area without approval of the permit(s) required in [Section 16.60.040](#) of this Chapter.

### **Risks to Trees by Construction**

Besides the above-mentioned health and structure-related issues, the trees at this site could be at risk of damage by construction or construction procedures that are common to most construction sites. These procedures may include the dumping or the stockpiling of materials over root systems; the trenching across the root zones for utilities or for landscape irrigation; or the routing of construction traffic across the root system resulting in soil compaction and root dieback. It is therefore essential that Tree Protection Fencing be used as per the Architect's drawings. In constructing underground utilities, it is essential that the location of trenches be done outside the drip lines of trees except where approved by the Arborist.

### **General Tree Protection Plan**

Protective fencing is required to be provided during the construction period to protect trees to be preserved. This fencing must protect a sufficient portion of the root zone to be effective. Fencing is recommended to be located 8 to 10 X the diameter at breast height (DBH) in all directions from the tree. DBH for each tree is shown in the attached data table. The minimum recommendation for tree protection fencing location is 6 X the DBH, where a larger distance is

not possible. There are areas where we will amend this distance based upon tree condition and proposed construction. In my experience, the protective fencing must:

- a. Consist of chain link fencing and having a minimum height of 6 feet.
- b. Be mounted on steel posts driven approximately 2 feet into the soil.
- c. Fencing posts must be located a maximum of 10 feet on center.
- d. Protective fencing must be installed prior to the arrival of materials, vehicles, or equipment.
- e. Protective fencing must not be moved, even temporarily, and must remain in place until all construction is completed, unless approved by a certified arborist.
- f. Tree Protection Signage shall be mounted to all individual tree protection fences.

Based on the existing development and the condition and location of trees present on site, the following is recommended:

1. The Project Arborist is Michael Young (650) 321-0202. A Project Arborist should supervise any excavation activities within the tree protection zone of these trees.
2. Any roots exposed during construction activities that are larger than 2 inches in diameter should not be cut or damaged until the project Arborist has an opportunity to assess the impact that removing these roots could have on the trees.
3. The area under the drip line of trees should be thoroughly irrigated to a soil depth of 18" every 3-4 weeks during the dry months.
4. Mulch should cover all bare soils within the tree protection fencing. This material must be 6-8 inches in depth after spreading, which must be done by hand. Course wood chips are preferred because they are organic and degrade naturally over time.
5. Loose soil and mulch must not be allowed to slide down slope to cover the root zones or the root collars of protected trees.
6. There must be no grading, trenching, or surface scraping inside the driplines of protected trees, unless specifically approved by a Certified Arborist. For trenching, this means:
  - a. Trenches for any underground utilities (gas, electricity, water, phone, TV cable, etc.) must be located outside the driplines of protected trees, unless approved by a Certified Arborist. Alternative methods of installation may be suggested.
  - b. Landscape irrigation trenches must be located a minimum distance of 10 times the trunk diameter from the trunks of protected trees unless otherwise noted and approved by the Arborist.
7. Materials must not be stored, stockpiled, dumped, or buried inside the driplines of protected trees.
8. Excavated soil must not be piled or dumped, even temporarily, inside the driplines of protected trees.
9. Landscape materials (cobbles, decorative bark, stones, fencing, etc.) must not be installed directly in contact with the bark of trees because of the risk of serious disease infection.
10. Landscape irrigation systems must be designed to avoid water striking the trunks of trees, especially oak trees.

11. Any pruning must be done by a Company with an Arborist Certified by the ISA (International Society of Arboriculture) and according to ISA, Western Chapter Standards, 1998.
12. Any plants that are planted inside the driplines of oak trees must be of species that are compatible with the environmental and cultural requirements of oaks trees. A publication detailing plants compatible with California native oaks can be obtained from The California Oak Foundation's 1991 publication "Compatible Plants Under & Around Oaks" details plants compatible with California native oaks and is currently available online at:  
<http://californiaoaks.org/wpcontent/uploads/2016/04/CompatiblePlantsUnderAroundOaks.pdf>

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I certify that the information contained in this report is correct to the best of my knowledge and that this report was prepared in good faith. Please call me if you have questions or if I can be of further assistance.

Respectfully,



Michael P. Young

## TREE SURVEY DATA

Address: 16 Potrero Trail Santa Lucia Preserve Carmel, CA 93923  
 Inspection Date: 6/29/2021

Ratings for health and structure are given separately for each tree according to the table below. IE, a tree may be rated "Good" under the health column For excellent, vigorous appearance and growth, while the same tree may be rated "Fair, Poor" in the structure column if structural mitigation is needed.

KEY	Health	Structure
Good	excellent, vigorous	flawless
Fair - Good	no significant health concerns	very stable
Fair	declining: measures should be taken to improve health and appearance	routine maintenance needed
Fair - Poor	in decline: significant health issues	mitigation needed, it may or may not preserve this tree
Poor	dead or near dead	hazard

TAG NO.	COMMON NAME	DIAMETER AT BREAST HEIGHT"	H'/W'	HEALTH	STRUCTURE	PROTECTED (X)	TREE DISPOSITION	NOTES, RECOMMENDATIONS
1	Coast live oak	26.5	20'/40'	fg	p	x	C	Recommend removal, heavy lean, no hope for recovery
2	Coast live oak	14.0	25'/18'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 10'
3	Coast live oak	12.0	25'/20'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 7'
4	Coast live oak	21.5	40'/45'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, multiple leaders at 8'
5	Coast live oak	14.5	25'/18'	fg	fp	x	A	Recommend EWR, DWR, SP, RCE, codominant leaders at 13'
6	Coast live oak	24.0	48'/45'	fg	fp	x	A	Recommend EWR, DWR, SP, RCE, codominant leaders at 15'
7	Madrone	13.5	48'/20'	f	fp	x	B	Recommend EWR, DWR, SP, RCE, multiple leaders at 13'
8	Coast live oak	20.0	48'/30'	fg	f	x	A	Recommend EWR, DWR, SP, RCE, multiple leaders at 20'
9	Coast live oak	32.0	45'/55'	fg	f	x	A	Recommend EWR, DWR, SP, RCE, multiple leaders at 16', cabling
10	Coast redwood	24.0	40'/30'	fg	fg	x	A	Recommend EWR, DWR
11	Coast live oak	15.0	28'/20'	fg	f	x	A	Recommend EWR, DWR, SP, RCE
12	Coast live oak	15.0	30'/25'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, multiple leaders at 11', slight lean
13	Coast live oak	14.5/9.5	35'/30'	f	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at base, thin canopy
14	Coast live oak	14.0	35'/20'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 6'
15	Coast live oak	14.0	30'/16'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 5.5', slight oean
16	Coast live oak	15 @ 3.5'	32'/18'	f	fp	x	C	Recommend removal, codominant leaders at 3.5', over crowding, good forestry practice
17	Coast live oak	12.5	35'/18'	fg	f	x	A	Recommend EWR, DWR, SP, RCE
18	Coast redwood	30.0	45'/30'	fg	fg	x	A	Recommend EWR, DWR
19	Coast live oak	15.5	30'/20'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 6.5'
20	Coast live oak	21.0	30'/47'	fg	f	x	A	Recommend EWR, DWR, SP, RCE
21	Coast live oak	17 @ 2.5'	25'/18'	g	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 2.5'
22	Coast live oak	18 @ 2'	20'/17'	g	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 2'
23	Coast live oak	34.0	40'/40'	fg	fp	x	A	Recommend EWR, DWR, SP, RCE, codominant leaders at 10', cabling
24	Coast live oak	14.0	20'/20'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 5'
25	Coast redwood	15.5	40'/28'	fg	fg	x	A	Recommend EWR, DWR
26	Madrone	13 @ 1.5'	30'/15'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 1.5'
27	Coast redwood	19.0	38'/25'	f	fg	x	B	Recommend EWR, DWR, thinninh canopy
28	Coast redwood	17.0	37'/28'	fg	fg	x	A	Recommend EWR, DWR
29	Coast redwood	16.5	35'/25'	fg	fg	x	A	Recommend EWR, DWR
30	Coast live oak	18 @ 2'	30'/28'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 2'
31	Coast live oak	12.5	26'/18'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 5'
32	Coast redwood	11.5	35'/16'	fg	fg	x	A	Recommend EWR, DWR
33	Coast redwood	13.0	35'/20'	fg	fg	x	A	Recommend EWR, DWR
34	Coast redwood	14.0	36'/20'	fg	fg	x	A	Recommend EWR, DWR
35	Coast live oak	16 @ 3.5	25'/20'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 3.5'
36	Coast live oak	6.0	18'/10'	fg	f	x	B	Recommend EWR, DWR, SP, RCE
37	Coast live oak	10.0	26'/16'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 4'
38	Coast live oak	9.0	20'/12'	fg	f	x	B	Recommend EWR, DWR, SP, RCE
39	Coast live oak	6.0	20'/6'	f	f	x	C	Recommend removal, good forestry practice
40	Coast live oak	7.0	20'/6'	f	fp	x	C	Recommend removal, leaning
41	Coast live oak	13.0	30'/18'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 14', slight lean
42	Coast live oak	14.0	32'/20'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 10', slight lean

## TREE SURVEY DATA

TAG NO.	COMMON NAME	DIAMETER AT BREAST HEIGHT"	H'/W'	HEALTH	STRUCTURE	PROTECTED (X)	TREE DISPOSITION	NOTES, RECOMMENDATIONS
43	Coast live oak	6.5	23'/7'	f	fp	x	C	Recommend removal, leaning, good forestry practice
44	Coast live oak	12.0	32'/17'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, slight lean
45	Coast live oak	17.0	35'/28'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 5'
46	Coast live oak	16.0	35'/20'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 13'
47	Coast live oak	8.0	25'/6'	f	fp	x	C	Recommend removal, leaning low live crown ratio
48	Coast live oak	14.5 @ 3'	16'/8'	fp	p	x	C	Recommend removal, severe lean, no hope for recovery
49	Coast live oak	8.0	18'/12'	f	fp	x	C	Recommend removal, leaning, good forestry practice
50	Coast live oak	11.0	32'/16'	fg	f	x	B	Recommend EWR, DWR, SP, RCE, slight lean
51	Coast live oak	9/6.5	28'/15'	p	fp	x	C	Recommend removal, rotten leader, thin canopy, no hope for recovery
52	Coast live oak	13.5	28'/18'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, slight lean
53	Coast redwood	18.0	40'/30'	fg	fg	x	A	Recommend EWR, DWR, RCE
54	Coast redwood	17.0	38'/30'	fg	fg	x	A	Recommend EWR, DWR, RCE
55	Coast redwood	7.5	18'/16'	f	f	x	C	Recommend removal, good forestry practice
56	Coast live oak	34.0	12'/50'	p	p	x	C	tree is dead, top broke off
57	Coast live oak	8.4/7	18'/20'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at base, thin canopy
58	Coast live oak	18.0	30'/40'	fg	f	x	C	Remove for construction limits
59	Coast live oak	29.0	50'/45'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 6', leaning
60	Coast live oak	16.0	50'/30'	fg	p	x	C	Recommend removal, severe lean, no hope for recovery
61	Coast live oak	40.0	55'/75'	fg	fp	x	B	Recommend EWR, DWR, SP, RCE, codominant leaders at 5'
62	Coast redwood	6.0					B	Dense brush with poison oak, unable to accurately survey at time of inspection
63	Coast redwood	7.0				x	B	Dense brush with poison oak, unable to accurately survey at time of inspection
64	Coast redwood	12.0				x	B	Dense brush with poison oak, unable to accurately survey at time of inspection
65	Coast redwood	15.0				x	B	Dense brush with poison oak, unable to accurately survey at time of inspection
66	Coast redwood	12.0				x	B	Dense brush with poison oak, unable to accurately survey at time of inspection

A = Retain, condition warrants long-term preservation	18
B = Preservable, but may not be worthy of extensive effort or design accommodation	35
C = Recommend removal due to existing condition and/or structure	13
<b>TOTAL TREES</b>	<b>66</b>

### KEY TO ACRONYMS

DWR - Dead Wood Removal pruning recommended.

EWR - End Weight Reduction: pruning to remove weight from limb ends, thus reducing the potential for limb failure(s).

RCE - Root Collar Excavation: excavating a small area around a tree that is currently buried by soil or refuse above buttress roots, usually done with a hand shovel.

SP - Structural pruning - removal of selected non-dominant leaders in order to balance the tree.

CD - Codominant Leader, two leaders with a narrow angle of attachment and prone to failure.

LCR - Live Crown Ratio.

RR - Recommend Tree Removal based upon Health or Structure of tree.

Prop - Steel prop in concrete footing recommended to help support a tree/limb.

Cable - Recommend a steel cable(s) be installed to help support a weakly attached limb(s).

### TREE ORDINANCE

No oak, madrone or redwood tree six inches or more in diameter two feet above ground level shall be removed in the Carmel Valley Master Plan area without approval of the permit(s) required in Section 16.60.040 of this Chapter.

Common Name	Latin Name
Coast live oak	<i>Quercus agrifolia</i>
Madrone	<i>Arbutus menziesii</i>
Coast redwood	<i>Sequoia sempervrens</i>

