

494 S Bernardo Ave

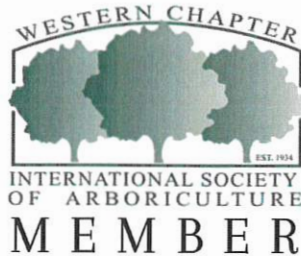
Sunnyvale, CA

Arborist Report 2025

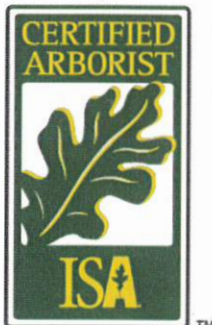


Prepared For:
Forrest Mozart

Site: 494 S Bernardo Ave
Sunnyvale, CA 94086



Submitted by:
David Beckham
Certified Arborist
WE#10724A
TRAQ Qualified



DAVID BECKHAM
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KIELTY

ARBORISTS SERVICES LLC

Certified Arborist WE#10724A TRAQ Qualified
P.O. Box 6187 San Mateo, CA 94403
650- 532-4418

Date: January 30, 2025

Attn: Forrest Mozart

Site: 494 S Bernardo Ave, Sunnyvale, CA 94086

Subject: Tree protection plan for 494 S Bernardo Ave, Sunnyvale, CA 94086

Dear Forrest Mozart,

INTRODUCTION AND OVERVIEW

Kiely Arborists Services LLC visited the property at 494 S Bernardo Ave, Sunnyvale, CA 94086, on 11/20/2024 to evaluate the trees present with respect to the proposed construction project. The report below contains an analysis of the site visit. Forrest Mozart is planning to build six new buildings to accommodate housing. The site consisted of a commercial building, driveway and parking lot, and landscaping area. The findings and recommendations presented in this report are based on the "S Bernardo" site study plan by California Communities. These plans were electronically provided to us via email and are dated 11/13/2024. By thoroughly analyzing these plans with our field observations, we have developed an accurate and reliable assessment of the tree conditions and how best to mitigate potential impacts.

Data Summary:

Total Trees	Total Street Trees	Neighboring Trees	Protected Trees		Non-Protected Trees		Overall Condition Rating		
			Total	Proposed for Removal	Total	Proposed for Removal	<50%	50%-69%	70-100%
64	15	1	16	10	48	33	14	43	7

There are 64 trees on the property, 16 of which are protected (#1- 10, 13, 27, 32, 50*, 54, 58), and one is tagged as a neighboring tree (#50*) and is dead. 43 trees are proposed for removal, as they are in decline or conflict with proposed project features. Protected street trees #4 and #7, while out of the area of proposed construction, are recommended/proposed to be removed as they are considered hazardous trees. With proper tree protection and cultural practices, all retained trees are expected to survive and thrive during and after construction.

ASSIGNMENT

At the request of Forrest Mozart, Kiely Arborists Services LLC conducted a site visit on 11/20/2024 to prepare a comprehensive Tree Inventory Report/Tree Protection Plan for the proposed construction project. This report is a requirement when submitting plans to the city of Sunnyvale.

The primary focus of this report is as follows:

- Identification and assessment of trees on the construction site that may be affected by the proposed development.
- Determination of potential impacts on tree health and stability, considering factors such as root damage and crown damage.
- Provision of recommendations for tree protection and preservation measures during the construction process to mitigate potential impacts.
- Ensuring compliance with local regulations pertaining to tree preservation, protection, and removal within the construction plans.

Please note that the report will provide specific details regarding tree assessments, impacts, and preservation measures.

The City of Mountain View requires the following tree-reporting elements for development projects:

1. Map of tree locations.
2. Tree protection or removal recommendations for all trees over 4 inches in diameter.
3. Tree Protection Plan for all protected trees.

LIMITS OF THE ASSIGNMENT

As part of this assessment, it is important to note that Kielty Arborists Services LLC did not conduct an aerial inspection of the upper crown, a detailed root crown inspection, or a plant tissue analysis on the subject trees. Therefore, the information presented in this report does not include data obtained from these specific methods.

Furthermore, it is essential to clarify that no tree risk assessments were completed as part of this report unless stated otherwise. The focus of this assessment primarily centers on tree identification, general health evaluation, and the potential impacts of the proposed construction.

While the absence of these specific assessments limits the scope of the analysis, the findings and recommendations provided within this report are based on available information and observations made during the site visit. This report is considered preliminary; once final construction details are available including final grading & drainage, landscaping and utilities, we can provide an Arborist Report.

METHOD OF INSPECTION

The inspections were conducted from the ground without climbing the trees. No tissue samples or root crown inspections were performed. The trees under consideration were identified based on the provided site plan. To assess the trees, their diameter at 54 inches above ground level (DBH or diameter at breast height) was measured using a D-Tape. For the surveying of multi-trunk trees, our methodology aligns with city ordinances. In cases where the city does not offer specific guidelines for measuring multi-trunk trees, we adhere to the standards outlined in the "Guide for Plant Appraisal, 10th Edition, Second Printing" by the Council of Tree and Landscape Appraisers. Additionally, the protected trees were evaluated for their health, structure, form, and suitability for preservation with the following explanation of the ratings:

EVALUATION FIELDS

Tree Tag #: Identification number for individual trees.	Protected Tree: Specifies whether the tree is protected by the city or county ordinance.
Height (ft.) / Canopy Spread (ft.): Measures both the height of the tree and the spread of its canopy.	Trunk (in.): Measures the primary trunk's diameter at the required height.
Comments: Any additional notes or observations about the tree.	Tree Picture: A photograph of the tree for visual assessment and record-keeping.
Preserve or Remove: Indicates the recommended action based on the tree's condition.	Common Name / Scientific Name: Specifies the name of the tree, both in common terms and scientific nomenclature.
If more than 1 Trunks, Total Diameter: If the tree has multiple trunks, this field indicates the combined diameter of all trunks.	6, 8, 10 Times the Diameter (ft.): Provides calculations based on the diameter to assist in various tree protection requirements.
Appraised Value: An unbiased estimate of the tree's worth is performed in accordance with the current edition of the Guide for Plant Appraisal by the Council of Tree and Landscape Appraisers.	

*Note that not all fields may be provided for every tree. Some might be left blank due to various reasons, such as lack of accessibility to the tree, incomplete data, or the parameter not being applicable for a particular tree.

Tree Structure Ratings: Poor: Major uncorrectable structural flaws present; significant dead wood, decay, or multiple trunks; potentially hazardous lean. Fair: Structural flaws exist but less severe; issues like slight lean and crowding on trunk; some uncorrectable issues through pruning. Good: Minor flaws; mainly upright trunk, well-spaced branches; flaws correctable through pruning; symmetrical or mostly symmetrical canopy.	Tree Health Ratings: Poor: Minimal new growth; significant dieback and pest infestation; expected not to reach natural lifespan. Fair: Moderate new growth; canopy density 60-90%; potential external threats; not in decline but vulnerable. Good: Vigorous growth; healthy foliage; 90-100% canopy density; expected natural lifespan.
Suitability for Preservation: Poor: Adds little to landscape; poor health and potential hazards; unlikely to survive construction impacts. Fair: Contributes to landscape; survival possible with protection during minor construction impacts. Good: Valuable landscape asset; likely survival during minor to moderate construction impacts with protection.	Tree Form Ratings: Poor: Highly asymmetric or abnormal form; visually unappealing; little landscape function. Fair: Significant asymmetries; deviation from species norm; compromised function or aesthetics. Good: Near ideal form; minor deviations; consistent aesthetics and function in landscape.

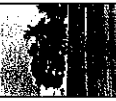
*Suitability for Preservation: This rating is based solely on the tree itself, irrespective of potential construction impacts.

Overall Condition Ratings:	
Very Poor	1-29
Poor	30-49
Fair	50-69
Good	70-89
Excellent	90-100

The trees were assigned a condition rating based on a combination of existing tree health, tree structure, and tree form using the following scale.

TREE INVENTORY SURVEY

KIELTY
ARBORISTS SERVICES LLC

Tree Tag #	Protected Tree	Preserve or Remove	Common Name / Scientific Name	Trunk (in.)	If more than 1 Trunk, Total Diameter	Ten Times the Diameter in (ft.)	Height (ft.) / Canopy Spread (ft.)	Health Rating	Structural Rating	Form Rating	Suitability for Preservation	Overall Condition (0-100%)	Summary	Tree Picture #1
1	Yes	(R)	DEODAR CEDAR <i>Cedrus deodara</i>	38	-	31.7	60/40	Fair	Poor	Poor	Poor	30%	Topped in the past at 15 feet, decay at root crown, at high risk of failure	
2	Yes	(P)	SOUTHERN MAGNOLIA <i>Magnolia grandiflora</i>	16.6	-	13.8	30/30	Fair	Fair	Fair	Fair	60%	Minor deadwood, long vertical scar along codominant leader at 6 feet, street tree.	
3	Yes	(P)	SOUTHERN MAGNOLIA <i>Magnolia grandiflora</i>	24.5	-	20.4	40/30	Fair	Poor	Fair	Fair	50%	Abundance of deadwood, 3" Hanger in canopy, codominant at 6 feet, Street tree, adjacent to streetlight	
4	Yes	(R)	SOUTHERN MAGNOLIA <i>Magnolia grandiflora</i>	15.1	-	12.6	25/25	Fair	Poor	Poor	Poor	30%	History of large limb loss, three large 6" diameter limbs have recently failed from the center of the canopy, codominant at 7 feet, in decline.	
5	Yes	(P)	SOUTHERN MAGNOLIA <i>Magnolia grandiflora</i>	18.5	-	15.4	30/20	Fair	Fair	Fair	Fair	65%	Codominant at 6 feet, Street tree, minor limb loss	
6	Yes	(R)	SOUTHERN MAGNOLIA <i>Magnolia grandiflora</i>	26	-	21.7	30/30	Poor	Poor	Poor	Poor	30%	Large codominant leader failure on the trunk of the tree due to included bark, Heartwood decay, hazardous tree, recommended to remove	
7	Yes	(R)	AMERICAN SWEETGUM <i>Liquidambar styraciflua</i>	18.6	-	15.5	40/30	Fair	Poor	Fair	Fair	45%	Codominant at 15 feet with included bark, history of limb loss, street tree.	

TREE INVENTORY SURVEY

Tree Tag #	Protected Tree	Preserve or Remove	Common Name / Scientific Name	Trunk (in.)	If more than 1 Trunk, Total Diameter	Ten Times the Diameter in (ft.)	Height (ft.) / Canopy Spread (ft.)	Health Rating	Structural Rating	Form Rating	Suitability for Preservation	Overall Condition (0-100%)	Summary	Tree Picture #1
8	Yes	(P)	AMERICAN SWEETGUM <i>Liquidambar styraciflua</i>	12.7	-	10.6	30/20	Fair	Fair	Fair	Fair	60%	Codominant at 8 feet, crown reduction pruning in past. Street tree	
9	Yes	(P)	AMERICAN SWEETGUM <i>Liquidambar styraciflua</i>	13.5	-	11.3	30/20	Fair-poor	Fair	Fair	Fair	50%	Codominant at 8 feet, crown reduction pruning in past, decay along limbs observed. Street tree	
10	Yes	(R)	AMERICAN SWEETGUM <i>Liquidambar styraciflua</i>	15.2	-	12.7	30/20	Poor	Poor	Poor	Poor	20%	Codominant at 10 feet, large limb failure at 6 feet in past, heartwood decay, crack along trunk, hazardous tree, recommended to be removed immediately. Poor Vigor	
11	No	(R)	CALLERY PEAR <i>Pyrus calleryana</i>	8.3	-	6.9	20/15	Fair	Poor	Fair	Fair	55%	Codominant at 10 feet, minor deadwood	
12	No	(R)	RAYWOOD ASH <i>Fraxinus angustifolia</i> 'Raywood'	8.7	-	7.3	30/20	Fair	Poor	Fair	Fair	50%	Codominant at 8 feet with included bark	
13	Yes	(R)	DEODAR CEDAR <i>Cedrus deodara</i>	36.5	-	30.4	55/50	Good	Poor	Poor	Poor	45%	Tree has been topped in the past at 15 feet, surrounded by deck, padding on lower trunk	
14	No	(R)	RAYWOOD ASH <i>Fraxinus angustifolia</i> 'Raywood'	11.2	-	9.3	30/20	Fair	Fair	Good	Good	65%	Codominant at 7 feet, on raised mound, minor deadwood	

TREE INVENTORY SURVEY

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Tree Tag #	Protected Tree	Preserve or Remove	Common Name / Scientific Name	Trunk (in.)	If more than 1 Trunk, Total Diameter	Ten Times the Diameter in (ft.)	Height (ft.) / Canopy Spread (ft.)	Health Rating	Structural Rating	Form Rating	Suitability for Preservation	Overall Condition (0-100%)	Summary	Tree Picture #1
15	No	(R)	RAYWOOD ASH <i>Fraxinus angustifolia</i> "Raywood"	10.2	-	8.5	30/20	Fair	Fair	Good	Good	65%	Codominant at 7 feet, on raised mound, minor deadwood	
16	No	(R)	RAYWOOD ASH <i>Fraxinus angustifolia</i> "Raywood"	10.4	-	8.7	30/20	Fair	Fair	Good	Good	65%	Codominant at 7 feet, on raised mound, minor deadwood	
17	No	(R)	RAYWOOD ASH <i>Fraxinus angustifolia</i> "Raywood"	9.3	-	7.8	30/20	Fair	Fair	Good	Good	65%	Codominant at 7 feet, on raised mound, minor deadwood	
18	No	(R)	RAYWOOD ASH <i>Fraxinus angustifolia</i> "Raywood"	8.5	-	7.1	30/20	Fair	Fair	Good	Good	65%	Codominant at 7 feet, on raised mound, minor deadwood	
19	No	(R)	RAYWOOD ASH <i>Fraxinus angustifolia</i> "Raywood"	7.2	-	6.0	30/20	Fair	Fair	Good	Good	65%	Codominant at 7 feet, on raised mound, minor deadwood	
20	No	(R)	GRAPE MYRTLE <i>Lagerstroemia indica</i>	8.2	-	6.8	25/15	Fair	Fair	Fair	Fair	65%	Minor deadwood, surrounded by Hardscapes	
21	No	(R)	GRAPE MYRTLE <i>Lagerstroemia indica</i>	6.5	-	5.4	20/15	Fair	Fair	Fair	Fair	65%	Minor deadwood, surrounded by Hardscapes	

TREE INVENTORY SURVEY

Tree Tag #	Protected Tree	Preserve or Remove	Common Name / Scientific Name	Trunk (in.)	If more than 1 Trunk, Total Diameter	Ten Times the Diameter in (ft.)	Height (ft.) / Canopy Spread (ft.)	Health Rating	Structural Rating	Form Rating	Suitability for Preservation	Overall Condition (0-100%)	Summary	Tree Picture #1
22	No	(R)	ORANGE <i>Citrus sinensis</i>	5.8	-	4.8	10/8	Good	Good	Good	Good	70%	Abundance of fruit, minor deadwood	
23	No	(R)	GRAPE MYRTLE <i>Lagerstroemia indica</i>	6.4	-	5.3	15/15	Good	Good	Good	Good	70%	Aesthetically pleasing	
24	No	(R)	GRAPE MYRTLE <i>Lagerstroemia indica</i>	6.5	-	5.4	16/14	Good	Good	Good	Fair	70%	In Raised planting area adjacent to retaining wall and driveway, aesthetically pleasing	
25	No	(R)	GRAPE MYRTLE <i>Lagerstroemia indica</i>	6.2	-	5.2	16/14	Good	Good	Good	Fair	70%	In Raised planting area adjacent to retaining wall and driveway, aesthetically pleasing	
26	No	(R)	GRAPE MYRTLE <i>Lagerstroemia indica</i>	7.1	-	5.9	16/14	Good	Good	Good	Fair	70%	In Raised planting area adjacent to retaining wall and driveway, aesthetically pleasing	
27	Yes	(R)	CALLERY PEAR <i>Pyrus calleryana</i>	12.7	-	10.6	25/20	Fair	Fair	Fair	Fair	65%	One-sided. Suppressed by street tree, fire blight	
28	No	(R)	CALLERY PEAR <i>Pyrus calleryana</i>	6	-	5.0	15/10	Fair	Fair	Good	Good	70%	Young tree codominant, dominant at 10 feet.	

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29	No	(R)	CALLERY PEAR <i>Pyrus calleryana</i>	3	-	2.5	12/5	Fair	Fair	Good	Good	70%	Young tree.	
30	No	(R)	KUMQUAT <i>Citrus japonica</i>	2	-	1.7	6/5	Fair	Good	Good	Poor	60%	Close to structure, deadwood	
31	No	(R)	LIME <i>Citrus S.P.</i>	5	-	4.2	10/8	Fair	Fair	Fair	Poor	50%	Surrounded by Hardscape, codominant at grade	
32	Yes	(R)	CALLERY PEAR <i>Pyrus calleryana</i>	14.7	-	12.3	30/20	Fair	Poor	Fair	Poor	45%	Codominant at 6 feet with included bark, surrounded by parking lot, in small landscape strip	
33	No	(R)	SWEET BAY <i>Laurus nobilis</i>	5.7	-	4.8	14/8	Fair	Poor	Fair	Fair	50%	Leans, Sun scald on the trunk, adjacent to the parking lot	
34	No	(R)	SWEET BAY <i>Laurus nobilis</i>	5.8	-	4.8	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
35	No	(R)	SWEET BAY <i>Laurus nobilis</i>	5.8	-	4.8	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	

TREE INVENTORY SURVEY



Tree Tag #	Protected Tree	Preserve or Remove	Common Name / Scientific Name	Trunk (in.)	If more than 1 Trunk, Total Diameter	Ten Times the Diameter in (ft.)	Height (ft.) / Canopy Spread (ft.)	Health Rating	Structural Rating	Form Rating	Suitability for Preservation	Overall Condition (0-100%)	Summary	Tree Picture #1
36	No	(P)	SWEET BAY <i>Laurus nobilis</i>	4.7	-	3.9	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
37	No	(P)	SWEET BAY <i>Laurus nobilis</i>	3.4	-	2.8	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
38	No	(P)	SWEET BAY <i>Laurus nobilis</i>	3.5	-	2.9	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
39	No	(P)	SWEET BAY <i>Laurus nobilis</i>	3.9	-	3.3	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
40	No	(P)	SWEET BAY <i>Laurus nobilis</i>	4.5	-	3.8	14/8	Fair	Fair	Fair	Fair	60%	Adjacent to parking lot	
41	No	(P)	SWEET BAY <i>Laurus nobilis</i>	3.3	-	2.8	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
42	No	(P)	SWEET BAY <i>Laurus nobilis</i>	3.8	-	3.2	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	

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Tree Tag #	Protected Tree	Preserve or Remove	Common Name / Scientific Name	Trunk (in.)	If more than 1 Trunk, Total Diameter	Ten Times the Diameter in (ft.)	Height (ft.) / Canopy Spread (ft.)	Health Rating	Structural Rating	Form Rating	Suitability for Preservation	Overall Condition (0-100%)	Summary	Tree Picture #1
43	No	(P)	SWEET BAY <i>Laurus nobilis</i>	7.9	-	6.6	14/8	Fair	Fair	Fair	Fair	60%	Adjacent to parking lot	
44	No	(P)	SWEET BAY <i>Laurus nobilis</i>	6.4	-	5.3	14/8	Fair	Fair	Fair	Fair	60%	Adjacent to parking lot	
45	No	(P)	SWEET BAY <i>Laurus nobilis</i>	5.2	-	4.3	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
46	No	(P)	SWEET BAY <i>Laurus nobilis</i>	5.4	-	4.5	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
47	No	(P)	SWEET BAY <i>Laurus nobilis</i>	2.5	-	2.1	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
48	No	(P)	SWEET BAY <i>Laurus nobilis</i>	3.5	-	2.9	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	
49	No	(P)	SWEET BAY <i>Laurus nobilis</i>	4.7	-	3.9	14/8	Fair	Poor	Fair	Fair	50%	Sun scald on the trunk, adjacent to the parking lot	

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Tree Tag #	Protected Tree	Preserve or Remove	Common Name / Scientific Name	Trunk (in.)	If more than 1 Trunk, Total Diameter	Ten Times the Diameter in (ft.)	Height (ft.) / Canopy Spread (ft.)	Health Rating	Structural Rating	Form Rating	Suitability for Preservation	Overall Condition (0-100%)	Summary	Tree Picture #1
50*	Yes	-	BLACK WALNUT <i>Juglans nigra</i>	30	-	25.0	25/15	Poor	Poor	Poor	Poor	0%	Dead tree, on neighboring property, covered in Ivy	
51	No	(P)	EASTERN REDBUD <i>Cercis canadensis</i>	2"x7	14	11.7	10/8	Fair	Poor	Fair	Poor	45%	Codominant at grade, topped in the past at 5 feet	
52	No	(R)	GRAPE MYRTLE <i>Lagerstroemia indica</i>	2.5	-	2.1	12/8	Fair	Good	Good	Fair	65%	Minor deadwood, parking lot, tree surrounded by Hardscape	
53	No	(R)	GRAPE MYRTLE <i>Lagerstroemia indica</i>	2.5	-	2.1	12/8	Fair	Good	Good	Fair	65%	Minor deadwood, parking lot, tree surrounded by Hardscape	
54	Yes	(R)	CALLERY PEAR <i>Pyrus calleryana</i>	13.8	-	11.5	30/25	Fair	Poor	Fair	Poor	45%	Parking lot tree, surrounded by hardscape, codominant at 7 feet with included bark	
55	No	(R)	BRISBANE BOX <i>Lophostemon confertus</i>	8.8	-	7.3	25/15	Fair	Fair	Fair	Fair	50%	Parking lot tree, surrounded by hardscape, codominant at 10 feet	
56	No	(R)	BRISBANE BOX <i>Lophostemon confertus</i>	9.3	-	7.8	25/15	Fair	Fair	Fair	Fair	50%	Parking lot tree, surrounded by hardscape, codominant at 10 feet	

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57	No	(R)	BRISBANE BOX <i>Lophostemon confertus</i>	9.1	-	7.6	25/15	Fair	Fair	Fair	Fair	50%	Parking lot tree, surrounded by hardscape, codominant at 10 feet	
58	Yes	(R)	BRISBANE BOX <i>Lophostemon confertus</i>	12.8	-	10.7	25/15	Fair	Fair	Fair	Fair	50%	Parking lot tree, surrounded by hardscape, codominant at 10 feet	
59	No	(R)	CALLERY PEAR <i>Pyrus calleryana</i>	9.8	-	8.2	18/15	Fair	Poor	Poor	Poor	45%	Decay at root crown, topped in the past, parking lot tree	
60	No	(R)	PACIFIC WAX MYRTLE <i>Morella (Myrica) californica</i>	6	-	5.0	10/10	Poor	Poor	Poor	Poor	30%	Abundance of deadwood, in decline	
61	No	(R)	PACIFIC WAX MYRTLE <i>Morella (Myrica) californica</i>	6.5	-	5.4	14/10	Poor	Poor	Poor	Poor	30%	Abundance of deadwood, in decline	
62	No	(R)	POMEGRANATE <i>Punica granatum</i>	1"x20	20	16.7	12/12	Fair-Poor	Poor	Poor	Poor	30%	Codominant at grade, in decline	
63	No	(R)	LONDON PLANE TREE <i>Platanus x hispanica</i>	10.7	-	8.9	35/30	Good	Good	Good	Poor	65%	Surrounded by hardscape.	

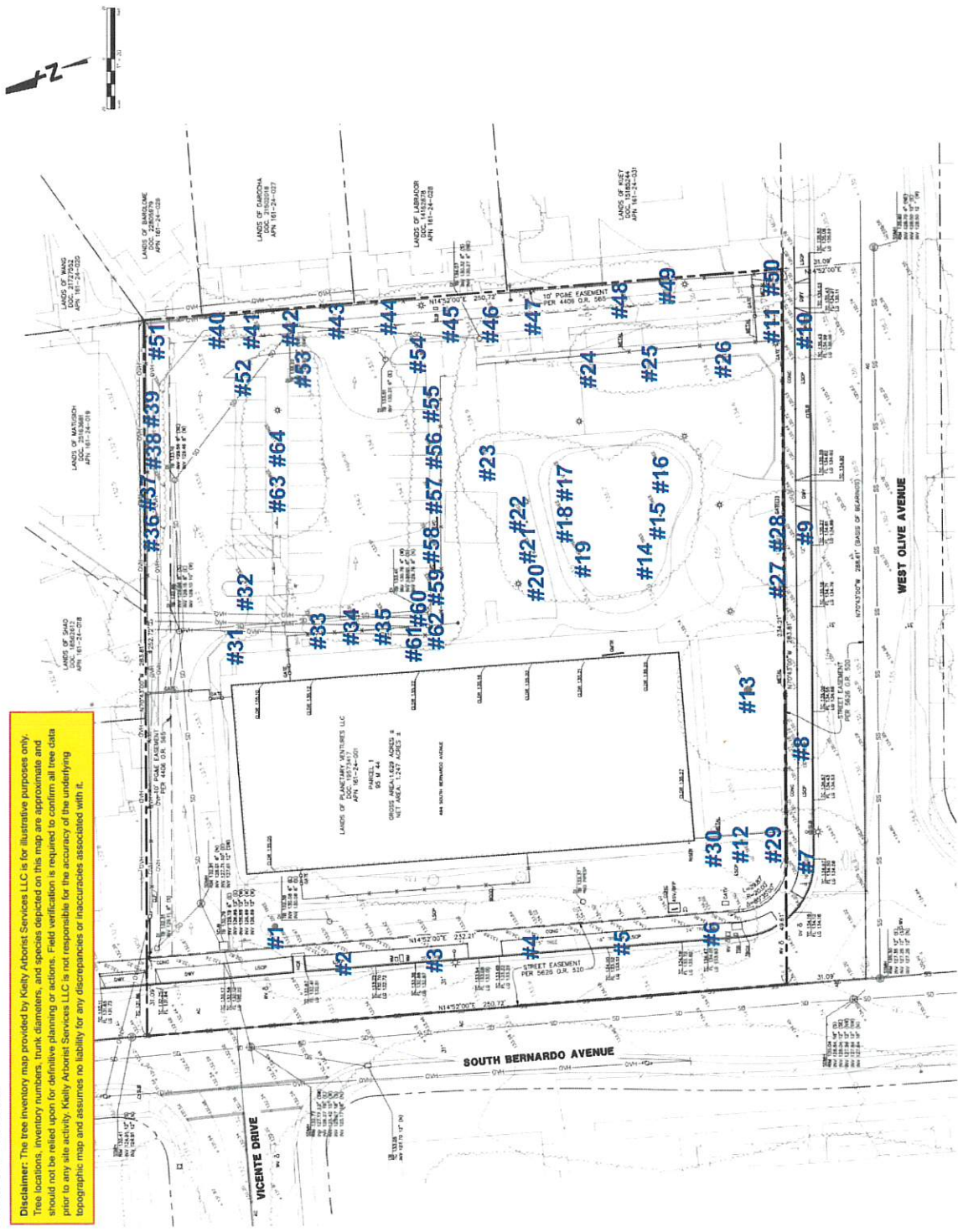
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64	NO	(R)	LONDON PLANE TREE <i>Platanus x hispanica</i>	11.5	-	9.6	35/30	Good	Good	Good	Poor	65%	Surrounded by hardscape.	

* - Indicates a neighboring tree

TREE MAP

Disclaimer: The tree inventory map provided by Kiely Arborist Services LLC is for illustrative purposes only. Tree locations, inventory numbers, trunk diameters, and species depicted on this map are approximate and should not be relied upon for definitive planning or actions. Field verification is required to confirm all tree data prior to any site activity. Kiely Arborist Services LLC is not responsible for the accuracy of the underlying topographic map and assumes no liability for any discrepancies associated with it.



OBSERVATIONS

Species List:

"AMERICAN SWEETGUM, *Liquidambar styraciflua*"
 "BLACK WALNUT, *Juglans nigra*"
 "BRISBANE BOX, *Lophostemon confertus*"
 "CALLERY PEAR, *Pyrus calleryana*"
 "CRAPE MYRTLE, *Lagerstroemia indica*"
 "DEODAR CEDAR, *Cedrus deodara*"
 "EASTERN REDBUD, *Cercis canadensis*"
 "KUMQUAT, *Citrus japonica*"
 "LIME, *Citrus S.P.*"
 "LONDON PLANE TREE, *Platanus x hispanica*"
 "ORANGE, *Citrus sinensis*"
 "PACIFIC WAX MYRTLE, *Morella (Myrica) californica*"
 "POMEGRANATE, *Punica granatum*"
 "RAYWOOD ASH, *Fraxinus angustifolia* 'Raywood'"
 "SOUTHERN MAGNOLIA, *Magnolia grandiflora*"
 "SWEET BAY, *Laurus nobilis*"

Protected Trees in Overall Poor Condition:

Overall Condition Rating		
Poor Condition	Fair Condition	Good Condition
14	43	7

Overall Condition Ratings:	
Very Poor	1-29
Poor	30-49
Fair	50-69
Good	70-89
Excellent	90-100

The trees were assigned a condition rating based on a combination of existing tree health, tree structure, and tree form using the following scale.

Trees Proposed For Removal:

Trees 1, 4, 6, 7, 10-35, 52-64 are proposed for removal.

Total Removed Trees	Significant / Protected Trees	Non-Protected Trees
43	10	33

Protected trees to be removed:

The removal of the protected trees listed below is recommended due to either their location within the footprint of the proposed new development or their poor structural and health conditions, which render them unsuitable for preservation. Each removal is justified under § 19.94.060 of the city code, which permits removal when a tree is diseased, damaged, poses a hazard, or unreasonably restricts property use due to its species, condition, or location.



Tree #1, a Deodar Cedar (*Cedrus deodara*) with a trunk diameter of 38 inches, has been severely compromised by a previous topping at 15 feet. This practice has left the tree with a poor structure that heightens the risk of a large leader failure. Significant decay at the root crown was also observed, increasing the tree's risk of structural failure at the root crown. Given its poor overall condition rating of 30% and the associated risk to people and nearby structures, its removal is warranted under § 19.94.060(a) and (b). Retaining this tree would pose an unacceptable hazard, as its structural integrity cannot be restored.

Tree #1



Showing evidence of root crown decay



Showing the 3 limb failures

Magnolia Tree #4 exhibits significant structural and physiological concerns that warrant its removal. The tree has a history of large limb failures, with three recent 6-inch diameter limbs detaching from the center of the canopy. This pattern of failure indicates progressive structural weakness, raising concerns about continued limb loss and associated safety risks. The tree's codominant structure at seven feet further exacerbates its instability, as codominant stems are prone to failure due to weak attachment points and included bark, which reduces the tree's ability to withstand wind or additional stress. Moreover, the tree is in a state of decline. Declining magnolias typically exhibit reduced vigor, sparse foliage, and diminished capacity to compartmentalize wounds, making them more susceptible to decay and further structural failure. Given the tree's compromised integrity and history of failure, mitigation through pruning would not be a viable long-term solution, as continued decline will likely lead to additional limb failures. Considering these factors, the removal of Magnolia Tree #4 is a justified course of action to eliminate the ongoing risk of branch failure and potential harm to nearby structures, pedestrians, or vehicles. If canopy coverage is a concern, a suitable replacement tree with strong structure and resilience should be considered to maintain the landscape value. Its removal is essential to eliminate the risk of failure and complies with § 19.94.060(a) and (b), as it is both damaged and hazardous.



Tree #6, a Southern Magnolia (*Magnolia grandiflora*) with a trunk diameter of 26 inches, has experienced a large codominant leader failure due to included bark on the main trunk. The presence of heartwood decay further exacerbates its hazardous condition. With an overall condition rating of 30% and poor structural and health ratings, this tree is unsuitable for retention. Its removal is essential to eliminate the risk of failure and complies with § 19.94.060(a) and (b), as it is both damaged and hazardous.

Tree #6



American Sweetgum Tree #7 presents multiple structural concerns that justify its removal. The tree has a codominant structure at 15 feet with included bark, a well-documented structural defect that significantly increases the likelihood of stem failure. Included bark weakens the attachment between codominant stems, making them more prone to splitting, especially under wind load or when additional weight is placed on the canopy. Given the tree's history of limb loss, there is already evidence of structural instability, further increasing the risk of future failure. As a street tree, the risks associated with failure are heightened. Limb or stem failure in this setting poses a direct threat to pedestrians, vehicles, and nearby infrastructure. The history of limb loss suggests that mitigation through pruning has not been sufficient to prevent ongoing structural issues, and due to the presence of included bark, the tree's condition is unlikely to improve with further intervention. Considering these factors, removal of Sweetgum Tree #7 is the most prudent course of action to eliminate safety hazards and liability concerns. If canopy replacement is necessary, a more structurally stable species should be selected to provide long-term benefits without the risks associated with codominant stems and limb failure.

Showing included bark



Tree #10, an American Sweetgum (*Liquidambar styraciflua*) with a trunk diameter of 15.2 inches, exhibits severe structural deficiencies, including codominance at 10 feet, a crack along the trunk, and heartwood decay. The tree has a history of large limb failure, further indicating its instability. Its poor vigor and overall condition rating of 20% make it a significant liability. Removal of this tree is critical to address its immediate hazard potential, as outlined in § 19.94.060(a) and (b).

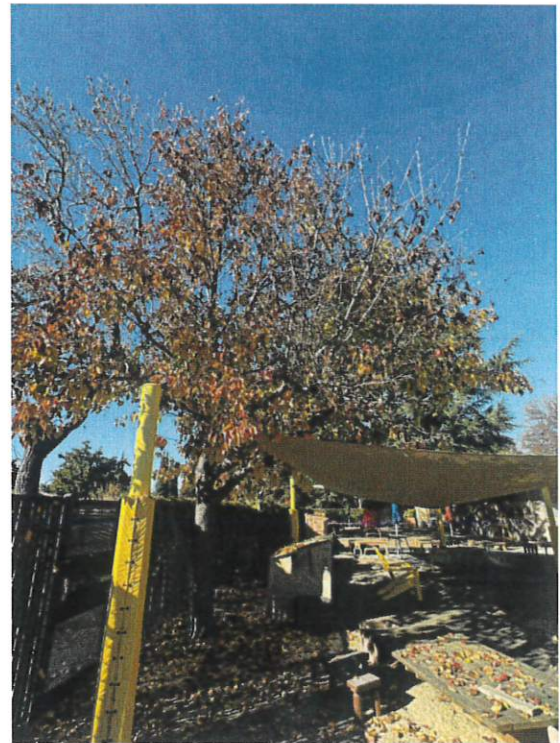
Showing decay in the stem on tree #10



Tree #13, a Deodar Cedar (*Cedrus deodara*) with a trunk diameter of 36.5 inches, has been previously topped at 15 feet, resulting in poor structural integrity. Additionally, the tree is surrounded by a deck that restricts its natural growth and compromises its usefulness in the landscape. Despite its fair health rating, the tree's poor structural and form ratings, along with an overall condition of 45%, justify its removal under § 19.94.060(a), (b), and (c)(7). Its removal will allow for improved use of the property and eliminate ongoing management concerns.

Tree #13

Tree #27, a Callery Pear (*Pyrus calleryana*) with a trunk diameter of 12.7 inches, is one-sided and heavily suppressed by a nearby street tree. Additionally, it shows signs of fire blight, a bacterial infection that weakens the tree's structural integrity and health. With a fair condition rating of 65%, its removal is necessary under § 19.94.060(a) to address its declining health and ensure better conditions for surrounding trees.



Tree #27

Tree #32, another Callery Pear (*Pyrus calleryana*) with a trunk diameter of 14.7 inches, is codominant at 6 feet with included bark, making it structurally unstable. The tree is located in a narrow landscape strip surrounded by parking lot hardscape and is in the footprint of the new structure, limiting its viability and long-term potential. With poor structural ratings and an overall condition of 45%, this tree's removal is justified under § 19.94.060(a), (b), and (c)(7). Removing this tree will enhance the surrounding landscape's functionality and safety. The tree is in the footprint of the new structure.

Tree #54, also a Callery Pear (*Pyrus calleryana*) with a trunk diameter of 13.8 inches, exhibits similar issues. The tree is codominant at 7 feet with included bark, surrounded by hardscape, is in the footprint of the new structure, and has poor structural integrity. With an overall condition rating of 45%, it has outgrown its useful landscape value and is unsuitable for retention. Its removal aligns with § 19.94.060(a), (b), and (c)(7) to mitigate potential hazards and improve the usability of the surrounding area.

Tree #58, a Brisbane Box (*Lophostemon confertus*) with a trunk diameter of 12.8 inches, is located in a constrained parking lot area surrounded by hardscape and is in the footprint of the new structure. The tree is codominant at 10 feet and has a fair overall condition rating of 50%. While not currently hazardous, its location and form significantly limit its value and potential for long-term preservation. Removal is recommended under § 19.94.060(a), (b), and (c)(7) to address its limited viability and improve the property's landscape design.

The removal of these trees is necessary to eliminate hazards, facilitate the proposed development, and improve the functionality and aesthetics of the site. Each removal complies with the city code, ensuring a balance between development needs and responsible tree management practices.

Non-Protected Trees to be Removed:

Non-protected trees #11, 12, 14-26, 28-31, 33-35, 52, 53, 55-57, 59-64 are proposed to be removed to help facilitate the proposed construction. The non-protected trees proposed for removal are all located within the footprint of the proposed development and cannot be preserved without compromising the project's design and functionality. These trees, though not protected under local ordinances, have been evaluated for health, structural integrity, and suitability for preservation. Many of the trees exhibit structural weaknesses, poor growing conditions, or are situated in areas where retention is impractical due to conflicts with construction.

Trees such as Callery Pears, Raywood Ashes, Crape Myrtles, and others are either codominant with included bark, exhibit signs of decline or damage, or are heavily constrained by hardscapes and parking lot infrastructure, which limits their long-term viability. For instance, trees like the Pacific Wax Myrtle and Pomegranate are in significant decline with poor ratings for health, structure, and form, making their removal an appropriate action. Similarly, trees such as the London Plane Trees, while healthier, are entirely surrounded by hardscape, severely restricting their root zones and compromising their ability to thrive.

Given the developmental constraints and the compromised conditions of many of these trees, removal is the most practical course of action to allow for the proposed construction while minimizing ongoing management challenges. This decision aligns with responsible arboricultural practices, prioritizing safety and functionality without impacting protected species or the overall landscape objectives of the site.

Replacement Tree Plan:

This tree replacement plan has been prepared in compliance with § 19.94.090 and addresses the removal of protected trees from the site. A total of ten replacement trees, each meeting the minimum size requirement of a California Association of Nurserymen's 24-inch box, will be planted to mitigate the loss. Replacement trees will include a mix of species that are native, drought-tolerant, and suited to the local environment, ensuring long-term health and sustainability. This diversity

will reduce the likelihood of future issues related to pests or diseases and enhance the ecological and aesthetic value of the property.

The replacement trees will be strategically placed to ensure proper growth and long-term viability. The site conditions, including available planting areas, existing healthy trees, and appropriate distances from structures, will guide tree placement. Each tree will be provided with adequate space for root and canopy development, ensuring its health and minimizing potential conflicts with infrastructure. Mixed species will be used to further promote biodiversity and maintain the overall resilience of the urban forest.

Tree care procedures will be implemented to support the establishment and health of the replacement trees. This will include proper planting with soil amendments, regular irrigation during the establishment phase, mulching to retain soil moisture and regulate temperature, and fertilization as necessary to encourage healthy growth. Trees will be staked as needed for stability and monitored regularly to address any issues such as pests, diseases, or structural concerns. Inspections will be conducted periodically, and corrective actions, such as pruning or re-staking, will be taken as required.

If on-site replanting is limited by space constraints or other factors, additional mitigation measures will be undertaken. These may include off-site planting in parks or other approved public areas to compensate for the loss of canopy. In cases where planting is not feasible, a contribution to the city's tree planting fund will be made to support urban reforestation initiatives.

Replanting will occur within six months of tree removal, or within a timeline specified by the city's director of community development. A report detailing the species, size, and location of all replacement trees will be submitted to ensure compliance with this plan. This approach ensures that the ecological, aesthetic, and functional contributions of the removed trees are adequately mitigated, supporting the sustainability of the urban forest while adhering to all city requirements.

PROJECT PLAN REVIEW

The following report's recommendations are contingent upon the contractor adhering to the stated responsibilities. It is the contractor's responsibility to contact the project arborist to schedule all required inspections promptly. Failure to schedule these inspections as needed may result in fines or stop work orders from the city.

Plan Review for 494 S Bernardo Ave, Sunnyvale, CA 94086

This review addresses the proposed construction activities outlined in the "S Bernardo" plans dated 11/13/2024, prepared by California Communities, and evaluates their impacts on the protected and non-protected trees on-site. The recommendations provided herein are intended to mitigate potential impacts on trees during demolition and construction while ensuring compliance with § 19.94.120 of the Sunnyvale City Code.

Protected Street Trees (Trees #2-#5 and #7-#9)

These Southern Magnolia (*Magnolia grandiflora*) and American Sweetgum (*Liquidambar styraciflua*) street trees are subject to a 15-foot protection zone as the setback is 15 feet, with Tree #3 requiring a slightly larger protection zone of 20 feet. The proposed foundation and utility trenching fall outside of ten times the diameter of these trees. If roots are encountered at the foundations, they will need to be cleanly cut back to the foundation wall. All excavation within these protection zones must be conducted by hand or with hand tools such as air knives, rotary hammers with clay spade attachments, or shovels, and must be supervised by the Project Arborist.

Roots greater than 1.5 inches in diameter encountered during excavation must be inspected by the Project Arborist and retained where possible. Any roots requiring removal will be cleanly cut with hand tools, followed by covering the cut

ends with three layers of wetted burlap to prevent desiccation. Burlap must be wetted daily until the area is backfilled. These measures, combined with biweekly irrigation of the tree protection zones during the dry season, will mitigate construction impacts. Overall, impacts on these trees are expected to be low to moderate, depending on the proximity of the work to the trees and the extent of roots encountered.

Tree-specific impacts include:

Tree #3, a Southern Magnolia (*Magnolia grandiflora*), is expected to experience moderate impacts due to its larger protection zone of 20 feet. The tree has an abundance of deadwood and a codominant structure, which present additional challenges during construction. To mitigate these impacts, frequent monitoring by the Project Arborist is recommended to assess the tree's condition throughout the construction process. Deadwood should be pruned regularly to reduce the risk of limb failure and improve the tree's overall structural stability. Additionally, careful excavation within the tree protection zone, as outlined in the recommendations, will minimize root disturbance and prevent unnecessary stress to the tree. These mitigation measures are expected to preserve the tree's health while allowing construction to proceed.

Tree #4, another Southern Magnolia, is in poorer condition than Tree #3, with a history of significant limb failure and an overall condition rating of only 30%. The impact on this tree is anticipated to be moderate to high due to its weakened state and its codominant structure at seven feet, which makes it more susceptible to stress from construction. Mitigation efforts include hand excavation within the protection zone, retention of roots larger than 1.5 inches in diameter where feasible, and consistent monitoring by the Project Arborist to address any emergent issues. While these steps will help reduce construction-related stress, the long-term viability of this tree is uncertain given its existing health and structural challenges. Its survival will depend on the effectiveness of these measures and the absence of further structural failures during and after construction.

Tree #7, an American Sweetgum (*Liquidambar styraciflua*), will face moderate impacts due to its codominant structure at 15 feet and a history of limb loss, coupled with included bark that predisposes it to structural weakness. Root impacts from construction will be mitigated by strict adherence to excavation guidelines, which require all work within the tree protection zone to be conducted by hand or with specialized tools under the supervision of the Project Arborist. Additionally, pruning of deadwood and routine monitoring will help maintain its health and reduce the risk of further limb loss. These measures are designed to minimize stress and ensure the tree's structural integrity during construction.

The rear screening trees, though not protected, will also be subject to potential impacts from construction activity. To safeguard these trees, type one protective fencing will be installed along the property line to prevent damage to their root zones and trunks. This fencing will remain in place for the duration of construction to ensure these trees are not harmed by equipment or material storage. Consistent monitoring by the Project Arborist will further ensure that these trees are not negatively impacted and can continue to provide aesthetic and functional value to the site.

In all cases, the recommended mitigation measures aim to balance the needs of the proposed development with the preservation of the site's trees. Frequent monitoring, careful excavation practices, and proper maintenance will play critical roles in minimizing the impacts on these trees and supporting their long-term health and stability.

The screening trees along the rear property boundary, including several Sweet Bays (*Laurus nobilis*), are not protected but should be preserved to maintain site aesthetics. Type 1 fencing will be installed along the property line to protect these trees from incidental damage during construction. The fencing will remain in place for the duration of the project, and no heavy equipment or storage will be permitted within their root zones.

Irrigation for retained trees

For the mature magnolia street trees in the Bay Area, as well as the retained American sweetgum street trees and the surrounding sweet bay trees, proper irrigation is essential due to the compacted, clay-like soil conditions that limit drainage. Magnolia and sweetgum trees both require consistent moisture but cannot tolerate prolonged drought or

excessive soil saturation. During the dry season, from spring through summer, deep watering should be provided every two to three weeks if rainfall is insufficient. Each watering session should deliver approximately 10 to 15 gallons per inch of trunk diameter, meaning a mature tree with a 12-inch trunk would require around 120 to 180 gallons. Water should be applied slowly and deeply to encourage deep root growth, ideally using a soaker hose or deep-root watering stakes to ensure even distribution and prevent surface runoff. Given the poor drainage of street tree planting sites, soil moisture should be monitored carefully, and watering frequency should be adjusted based on actual soil conditions.

For the sweet bay trees, which are not street trees and are likely planted in better-draining soil, the same deep watering approach applies, though they may require less frequent irrigation due to potentially improved soil conditions. Watering every three to four weeks during the dry season should be sufficient unless prolonged drought conditions necessitate more frequent irrigation. Sweet bays are relatively drought-tolerant once established, but deep watering is still beneficial for maintaining overall health and vigor. As with the other species, applying a two to four-inch layer of mulch around the base, keeping it at least six inches away from the trunk, will help retain soil moisture and regulate temperature. Checking soil moisture by probing six to eight inches below the surface before watering will ensure that trees receive adequate hydration without contributing to waterlogging, particularly for the street trees in compacted soil. By providing irrigation for the trees, the trees can remain in their current state of health.

Tree Protection Guidelines

Per city code, protective fencing will be installed at the outermost edge of the tree protection zones, with adjustments made to accommodate pedestrian pathways where necessary. The fencing will be a minimum of four feet in height and made of chain link to ensure visibility and durability. For areas where fencing cannot fully extend, a landscape barrier will be used to protect the root zones. The Project Arborist will inspect the fencing upon installation and submit a verification letter, including photos, to the City Arborist prior to the issuance of building permits.

Maintenance and Monitoring During Construction

The Project Arborist will conduct monthly inspections to monitor the condition of the protected trees and verify compliance with tree protection measures. These inspections will include recommendations for ongoing maintenance, such as mulching, irrigation, or adjustments to fencing. Monthly reports documenting the tree conditions, inspection findings, and mitigation measures will be submitted to the City Arborist for review.

Post-Construction Maintenance

After construction, the preserved trees will require continued care to ensure their health and recovery. Maintenance will include deep irrigation during the dry season, mulching to regulate soil temperature and moisture, and pruning as needed to remove deadwood or improve structure. Fertilization and pest management will be implemented as recommended by the Project Arborist. A final inspection and report will be provided to the City Arborist upon project completion, detailing the condition of the trees and any additional recommendations for long-term care.

Conclusion

The proposed construction activities at 494 S Bernardo Ave have been reviewed with respect to their impact on the protected and non-protected trees on-site. With adherence to the recommendations outlined in this review, including supervised excavation, protective fencing, mitigation measures, and ongoing monitoring, the impacts on the preserved trees are expected to be minimal and manageable. All work will comply with the Sunnyvale City Code and industry best practices, ensuring the long-term health and viability of the site's trees.

TREE PROTECTION PLAN

Detailed Tree Protection Plan

For the aforementioned tree protection plan, this detailed guide has been designed by Kielty Arborists Services LLC. The following section offers an in-depth perspective on the recommended tree preservation guidelines. The aim is to ensure the conservation, vitality, and beauty of trees during construction and developmental endeavors, mitigating any potential detrimental effects. Adherence to these guidelines is essential to uphold both the ecological significance and visual allure of trees within the designated project vicinity. Effective tree protection during construction or development projects requires the use of fencing to demarcate and protect sensitive areas around trees. Should you have any questions or require further clarification, please contact Kielty Arborists Services directly.

Fencing Specifications:

The tree protection fencing should be established and maintained throughout the entire length of the project. It's essential that no equipment, materials, or debris are stored or cleaned inside these protection zones. The zones should remain free from human activity unless explicitly authorized. The choice of fencing type depends on the tree's location and the nature of the surrounding environment.

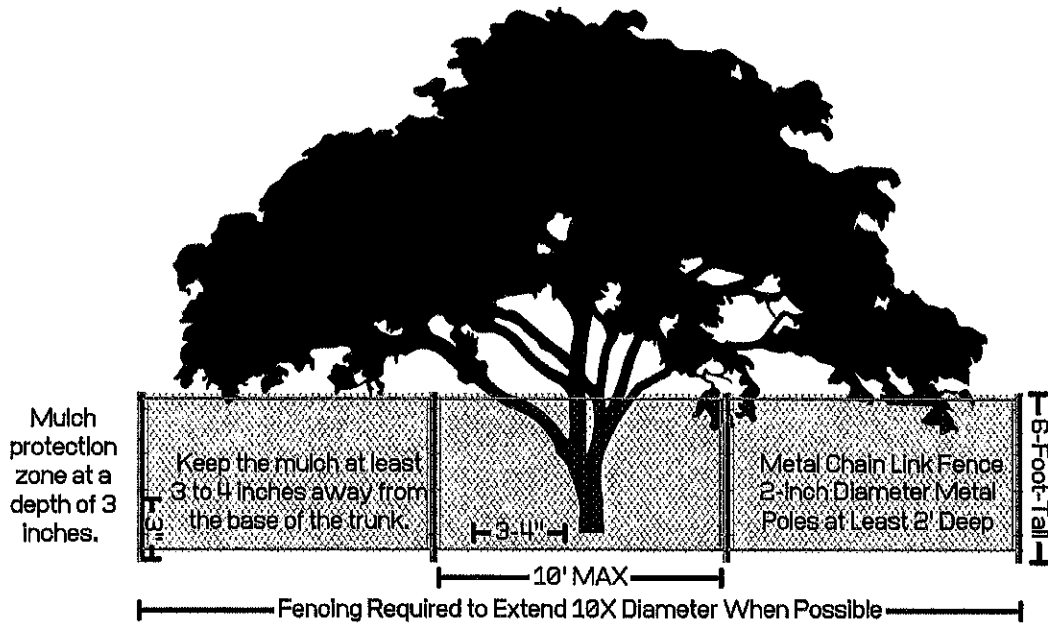
Type I Tree Protection:

Description: This is the most comprehensive form of tree protection fencing. It encompasses the full canopy dripline or Tree Protection Zone (TPZ) of trees designated for preservation.

Application: Typically used in areas where trees are a significant distance away from construction activity or when trees have a large canopy spread.

Specifications:

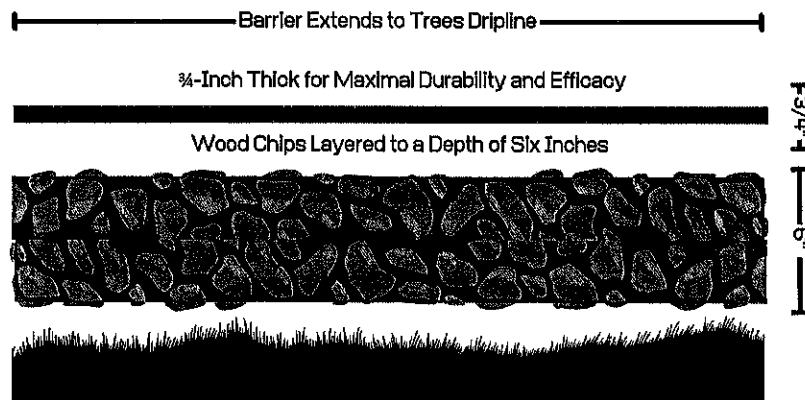
The fencing shall remain intact throughout the duration of the project or until activities within the TPZ are finalized. Tree protection fencing should be a 6-foot-tall metal chain link type supported by 2-inch thick diameter metal posts pounded into the ground to a depth of no less than 2 feet, ensuring stability even in challenging conditions. Poles should be spaced no more than 10 feet apart from center to center, providing a consistent and strong barrier. For trees near existing hardscapes or structures, tree protection fencing shall be placed as close as possible while still allowing access. Sensitive areas may require a landscape barrier if fencing needs to be reduced for access reasons. The location for tree protection fencing for the protected trees on site should be placed at 10x the tree diameters where possible (TPZ). All other non-protected trees are recommended to be protected by fencing placed at the drip line. No equipment or materials should be stored or cleaned inside protection zones. Apply mulch to the tree protection zones at a depth of 3 inches. Spread the mulch evenly throughout the designated area, ensuring it extends to, but does not touch, the tree trunk. Keep the mulch at least 3 to 4 inches away from the base of the trunk to prevent moisture buildup and potential rot. This will provide the necessary benefits of mulching, such as moisture retention and temperature regulation, while helping to maintain tree health. Signs should be placed on fencing signifying "Tree Protection Zone - Keep Out". If fencing needs to be reduced for access or any other reasons, the non-protected areas must be protected by a landscape buffer. All tree protection and inspection schedule measures, design recommendations, watering, and construction schedules shall be implemented in full by the owner and contractor. Trees #2,3, 5, 8, 9 and all screening trees at the property line are to be protected by Type I tree protection fencing.



Type I Fencing

Landscape Barrier Zone

If for any reason a smaller tree protection zone is needed for access, a landscape buffer should be used, composed of wood chips layered to a depth of six inches, complemented by plywood atop the wood chips where tree protection fencing would typically be situated. The plywood should be $\frac{3}{4}$ -inch thick for maximal durability and efficacy. This landscape buffer plays a crucial role in mitigating soil compaction within the tree's vulnerable root zone. For optimum stability, it is advisable to securely join the plywood boards, thus preventing any unwanted shifts in the plywood or underlying wood chips.



Landscape Barrier Zone



If for any reason roots are to be cut, the work shall be monitored and documented. Large roots (over 2 inches in diameter) or large masses of roots to be cut must be inspected by the site arborist. The site arborist, at this time, may recommend irrigation or fertilization of the root zone. All roots needing to be cut should be cut clean with a saw or lopper. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist.

Trenching/excavation

Trenching or excavation for irrigation, drainage, electrical, foundation, or any other reason shall be done by hand when inside the dripline of a protected tree. Hand digging and the careful placement of pipes below or besides protected roots will significantly reduce root loss, thus reducing trauma to the tree. All trenches shall be backfilled with native materials and compacted to near their original level, as soon as possible. Trenches to be left open for a period of time (24 hours), will require the covering of all exposed roots with burlap and be kept moist. The trenches will also need to be covered with plywood to help protect the exposed roots.

Grading

All existing grades underneath the dripline of a protected tree shall remain as is where possible. Grading within the dripline of a protected tree is required to be done under the supervision of the project arborist.

Irrigation

Non native trees- Irrigating the retained mature trees in the landscape is important to ensure their health and vitality. Proper watering can help the trees continue to thrive. Deep irrigation is recommended to take place every other week during the dry season. During the dry season, trees typically need deep, infrequent watering. Watering every 2 weeks is sufficient for the retained trees on this site. Applying water slowly and consistently until it penetrates at least 12-18 inches into the soil is recommended. Avoid spraying water directly on the trunks, as this can lead to disease and decay. Mulch is recommended to be maintained with mulch added overtime as needed. Mulch helps retain soil moisture, regulates temperature, and prevents weeds, which can compete with the tree for water. The use of soaker hoses or an inline drip emitter system set up in a grid like manner to provide deep irrigation during the dry season is recommended. The irrigation system should be placed on top of grade and require no excavation. This will help to keep the trees healthy.

Native oak trees- Native oak trees are recommended to only be irrigated during the months of May and September or if their root zones are traumatized. Frequent irrigation during dry summer months can significantly raise the risk of oak trees developing oak root fungus disease and is the leading cause of oak tree death and failure in the urban landscape.

Tree Pruning

Tree pruning during construction is not just about aesthetics and safety; it's also about adhering to best practices and standards set by professional bodies like the International Society of Arboriculture (ISA) and the American National Standards Institute (ANSI A300 Pruning Standards). The ISA sets rigorous standards to ensure trees are cared for sustainably and scientifically. Under these guidelines, and for the well-being of trees during construction, it's imperative to have an expert arborist oversee any pruning. Their knowledge guarantees that only the necessary branches are removed, ensuring both safety and tree health. The guideline to prune no more than 25% of the tree's total foliage is grounded in sound arboricultural practices. This safeguards the tree's photosynthetic capability, reduces undue stress, and preserves the balance between its roots and canopy. Homeowners should be aware of these standards and ensure they are being met, trusting in the expertise of their arborist and keeping open communication about their tree care decisions. This approach not only ensures the tree's compatibility with new construction aesthetics but also its long-term health and vitality.

Roots and Foundations

Recognize that tree roots typically do not grow under existing houses or buildings due to compacted soil and limited moisture availability during foundation installation. Ensure that foundations are correctly installed to minimize the risk of tree root intrusion. Avoid situations where trees are planted too close to existing or planned structures, as this can result in potential conflicts between roots and foundations. If tree roots are in direct contact with a foundation, consult with a certified arborist to assess the situation and recommend appropriate measures to protect both the tree and the structure.

Traffic Within TPZs

Strictly prohibit driving vehicles or heavy foot traffic on bare soil within the TPZs of protected trees. Such activities can crush roots directly and compact the soil, impeding oxygen and water infiltration. In areas without existing pavement, use temporary anti-compaction materials, such as wood chips covered with plywood, to prevent damage to tree roots (landscape barrier). Temporary pathways or boardwalks can be constructed to facilitate access while minimizing soil compaction within the TPZ.

Chemical and Material Handling

Store chemicals and construction materials away from TPZs to prevent accidental spills or exposure that may harm tree health. Follow proper handling and disposal procedures for chemicals to ensure compliance with environmental regulations. Minimize the use of toxic materials near trees and opt for environmentally friendly alternatives whenever possible.

Monitoring and Inspection

Regularly monitor and inspect the tree protection measures throughout the construction process to ensure their effectiveness and compliance with the Tree Preservation Plan. Assign a qualified individual, such as a project arborist or certified arborist, to conduct periodic inspections and provide recommendations for any necessary adjustments or improvements. Maintain detailed records of inspections, including dates, findings, and any actions taken.

Post-Construction Maintenance

After construction is completed, continue monitoring the health and condition of preserved trees to address any potential issues promptly. Implement post-construction maintenance practices such as watering, mulching, pruning, and fertilization as needed to support the recovery and long-term health of the trees. Regularly assess the trees for signs of stress, disease, or structural instability and take appropriate measures, including consulting with a certified arborist if necessary.

Compliance with Environmental Laws

Ensure full compliance with all applicable local, state, and federal environmental laws, regulations, and permit requirements pertaining to tree protection during construction. Familiarize yourself with specific regulations regarding tree preservation in your jurisdiction and consult with local authorities or arborists for guidance if needed.

Responsibility

Designate a responsible person or team within the project organization to oversee the implementation and enforcement of the Tree Preservation Plan. Clearly communicate the roles and responsibilities of all parties involved in the construction project regarding tree protection.

Emergency Procedures

Develop clear procedures to follow in the event of emergencies that may impact tree preservation, such as severe storms, accidents, or unexpected tree health issues. Ensure that emergency response plans address prompt actions to mitigate potential risks to trees and contact qualified professionals, such as arborists or tree care companies when needed.

Communication and Training

Facilitate effective communication among all project stakeholders, including contractors, subcontractors, architects, engineers, and landscape professionals, regarding the importance of tree preservation and the specific guidelines to follow. Conduct training sessions or workshops to educate personnel.

PURPOSE & USE OF THE REPORT

This report informs tree management decisions for the construction project and provides recommendations to maximize tree survival. It serves as a valuable resource for stakeholders, facilitating informed discussions and sustainable tree management practices.

TESTING & ANALYSIS

In order to assess the trees, a thorough examination was conducted using a variety of methods. For trees with accessible trunks, precise measurements of the Diameter at Breast Height (DBH) were taken using a specialized diameter tape measure. In cases where the trunks were not readily accessible, visual estimations were employed to determine the DBH. As part of the inventory process, all trees exceeding a specific DBH threshold stated in city code were included.

To evaluate the health of the trees, multiple factors were considered, including their overall appearance and our team's extensive experiential knowledge of each species. This holistic approach ensured a comprehensive understanding of the tree's well-being.

To accurately document the location of each tree, a GPS smartphone application was utilized during the data collection process. This enabled us to create detailed maps that are included in this report. However, it is important to note that despite our efforts to minimize errors, inherent limitations of GPS data collection, coupled with slight discrepancies between GPS data and CAD drawings, may result in approximate tree locations depicted on the map.

TREE WORK STANDARDS AND QUALIFICATIONS

To ensure high-quality tree work, including removal, pruning, and planting, the following standards and qualifications will be adhered to:

- **Industry Standards:** All tree work will be performed in accordance with industry standards established by the International Society of Arboriculture (ISA). These standards encompass best practices and guidelines for tree care and maintenance.
- **Contractor Licensing and Insurance:** The contractor undertaking the tree work must possess a valid State of California Contractors License for Tree Service (C61-D49) or Landscaping (C-27). Additionally, they must have comprehensive general liability, worker's compensation, and commercial auto/equipment insurance coverage.
- **Workmanship Standards:** Contractors must adhere to the current Best Management Practices of the International Society of Arboriculture (ISA) and the American National Standards Institute (ANSI). These standards, including ANSI A300 and Z133.1, outline guidelines for tree pruning, fertilization, and safety. Compliance with these standards ensures the use of proper techniques and practices throughout the tree work process.

By adhering to these established standards and qualifications, we can ensure the provision of professional and safe tree services that meet the industry's best practices and promote the health and longevity of the trees.

SCHEDULE OF INSPECTIONS

Kielty Arborists Services LLC:

We will conduct the following inspections as needed for the project:

- **Pre-Equipment Mobilization, Delivery of Materials, Tree Removal, and Site Work:** Our project arborist will meet with the general contractor and owners to review tree protection measures. We will identify and mark

tree-protection zone fencing, specify equipment access routes and storage areas, and assess the existing conditions of trees to determine any additional necessary protection measures.

- **Inspection after Installation of Tree-Protection Fencing:** Upon completion of tree-protection fencing installation, our project arborist will inspect the site to ensure that all protection measures are correctly implemented. We will also review any contractor requests for access within the tree protection zones and assess any changes in tree health since the previous inspection.
- **Inspection during Soil Excavation or Work Potentially Affecting Protected Trees:** During any work within non-intrusion zones of protected trees, our project arborist will inspect the site and document the implemented recommendations. We will assess any changes in tree health since the previous inspection to monitor the well-being of the trees.
- **Final Site Inspection:** Prior to project completion, our project arborist will conduct a final site inspection to evaluate tree health and provide necessary recommendations to promote their longevity. A comprehensive letter report summarizing our findings and conclusions will be provided to the City of Sunnyvale.

Our inspections aim to ensure proper tree protection, health, and adherence to project requirements.

ASSUMPTIONS AND LIMITING CONDITIONS

- **Legal Descriptions and Titles:** The consultant/arborist assumes the accuracy of any legal description and titles provided. No responsibility is assumed for any legal due diligence. The consultant/arborist shall not be held liable for any discrepancies or issues arising from incorrect legal descriptions or faulty titles.
- **Compliance with Laws and Regulations:** The property is assumed to be in compliance with all applicable codes, ordinances, statutes, or other government regulations. The consultant/arborist is not responsible for identifying or rectifying any non-compliance.
- **Reliability of Information:** Though diligent efforts have been made to obtain and verify information, the consultant/arborist is not responsible for inaccuracies or incomplete data provided by external sources. The client accepts full responsibility for any decisions or actions taken based on this data.
- **Testimony or Court Attendance:** The consultant/arborist has no obligation to provide testimony or attend court regarding this report unless mutually agreed upon through separate written agreements, which may incur additional fees.
- **Report Integrity:** Unauthorized alteration, loss, or reproduction of this report renders it invalid. The consultant/arborist shall not be liable for any interpretations or conclusions made from altered reports.
- **Restricted Publication and Use:** This report is exclusively for the use of the original client. Any other use or dissemination, without prior written consent from the consultant/arborist, is strictly prohibited.
- **Non-disclosure to Public Media:** The client is prohibited from using any content of this report, including the consultant/arborist's identity, in any public communication without prior written consent.
- **Opinion-based Report:** The report represents the independent, professional judgment of the consultant/arborist. The fee is not contingent upon any predetermined outcomes, values, or events.
- **Visual Aids Limitation:** Visual aids are for illustrative purposes and should not be considered precise representations. They are not substitutes for formal engineering, architectural, or survey reports.
- **Inspection Limitations:** The consultant/arborist's inspection is limited to visible and accessible components. Non-invasive methods are used. There is no warranty or guarantee that problems will not develop in the future.

ARBORIST DISCLOSURE STATEMENT

Arborists specialize in the assessment and care of trees using their education, knowledge, training, and experience.

- **Limitations of Tree Assessment:** Arborists cannot guarantee the detection of all conditions that could compromise a tree's structure or health. The consultant/arborist makes no warranties regarding the future condition of trees and shall not be liable for any incidents or damages resulting from tree failures.
- **Remedial Treatments Uncertainty:** Remedial treatments for trees have variable outcomes and cannot be guaranteed.
- **Considerations Beyond Scope:** The consultant/arborist's services are confined to tree assessment and care. The client assumes responsibility for matters involving property boundaries, ownership, disputes, and other non-arboricultural considerations.
- **Inherent Risks:** Living near trees inherently involves risks. The consultant/arborist is not responsible for any incidents or damages arising from such risks.
- **Client's Responsibility:** The client is responsible for considering the information and recommendations provided by the consultant/arborist and for any decisions made or actions taken.

The client acknowledges and accepts these Assumptions and Limiting Conditions and Arborist Disclosure Statement, recognizing that reliance upon this report is at their own risk. The consultant/arborist disclaims all warranties, express or implied.

CERTIFICATION

I hereby certify that all the statements of fact in this report are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

David Beckham

Signature of Consultant

David Beckham

Certified Arborist

WE#10724A TRAQ Qualified

Date: January 30, 2025

