

**Tree Inventory, Assessment,
and
Protection**

**15365 Santella Court
Los Gatos, CA 95032**

Prepared for:

Town of Los Gatos

November 29, 2018

Prepared By:

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Summary

The proposed project is located at the end of Santella Court on the vacant lot. The inventory contains 44 trees comprised of 2 different species (coast live oak (*Quercus agrifolia*) and blue oak (*Quercus douglasii*)). Nine oaks are considered Large Protected, thirty-five are Protected, and none are Exempt. Most of the trees are in either good or fair condition and the suitability ratings mirror the condition ratings. Fifteen trees will require removal to construct the residence and driveway as proposed. One tree was rated as moderate-highly impacted, 7 moderate, 5 moderate-low and 16 will not be affected. Five of the fifteen to be highly impacted are Large Protected Trees (668, 675, 676, 677 and 691). The removals would require some combination of sixty-eight 24 inch box or thirty-four 36 inch box replacements. Tree protection for this project would consist of a modified Type I scheme with the retained trees all located around the perimeter of the site. A total of 44 trees were appraised for a rounded depreciated value of \$242,700.00 using the Trunk Formula Method.

Introduction

Background

The Town of Los Gatos asked me to assess the site, trees, and proposed footprint plan, and to provide a report with my findings and recommendations to help satisfy planning requirements.

Assignment

- Provide an arborist's report including an assessment of the trees within the project area and on the adjacent sites. The assessment is to include the species, size (trunk diameter), condition (health and structure), and suitability for preservation ratings. Affix aluminum number tags on the trees for reference on site and on plans.
- Provide tree protection specifications, guidelines, and impact ratings for trees that may be affected by the project.
- Provide appraised values.



Limits of the assignment

- The information in this report is limited to the condition of the trees during my inspection on November 26, 2018. No tree risk assessments were performed.
- Tree heights and canopy diameters are estimates.
- The plans reviewed for this assignment were as follows (Table 1).

Table 1: Plans Reviewed Checklist

Plan	Date	Sheet	Reviewed	Source	Notes
Existing Site Topographic Map or A.L.T.A with tree locations			No		
Proposed Site Plan	October 19, 2018	A101		Sruti Architects	
Demolition Plan			No		
Construction Staging			No		
Grading and Drainage	August 5, 2018	L1.0 L2.0 L2.2		David Fox & Company	
Utility Plan and Hook-up locations			No		
Exterior Elevations					
Landscape Plan					
Irrigation Plan			No		
T-1 Tree Protection Plan			No		

Purpose and use of the report

The report is intended to identify all the trees within the plan area that could be affected by a project. The report is to be used by the Town of Los Gatos and the property owners as a reference for existing tree conditions to help satisfy planning requirements.

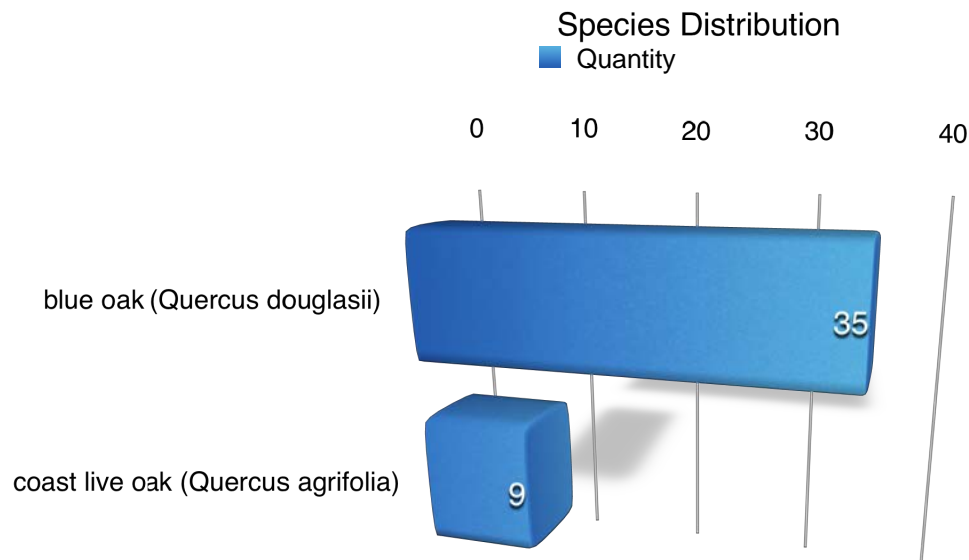


Observations

Tree Inventory

The inventory consists of trees protected by the Town of Los Gatos located on site and those in close proximity on neighboring properties. Sec. 29.10.0960. - Scope of protected trees. All trees which have a four-inch or greater diameter (twelve and one half-inch circumference) of any trunk, when removal relates to any review for which zoning approval or subdivision approval is required. (Appendix A and B). Los Gatos Town Ordinance 29.10.0970 Exceptions (1) states the following: “A fruit or nut tree that is less than eighteen (18) inches in diameter (fifty-seven-inch circumference).

The inventory contains 44 trees comprised of 2 different species. Nine oaks are considered Large Protected¹, thirty-five are Protected², and none are Exempt³. The chart below list the species and their relative quantities (Chart 1).



¹ Large protected tree means any oak (*Quercus spp.*), California buckeye (*Aesculus californica*), or Pacific madrone (*Arbutus menziesii*) which has a 24-inch or greater diameter (75-inch circumference); or any other species of tree with a 48-inch or greater diameter (150-inch circumference).

² Protected tree means a tree regulated by the Town of Los Gatos as set forth in Section. [29.10.0960](#), Scope of protected trees.

³ A fruit or nut tree that is less than eighteen (18) inches in diameter (fifty-seven-inch circumference).



Analysis

Tree appraisal was performed according to the Council of Tree & Landscape Appraisers *Guide for Plant Appraisal 9th Edition, 2000* (CLTA) along with Western Chapter International Society of Arboriculture *Species Classification and Group Assignment, 2004*. The trees were appraised using the “Cost Approach” and more specifically the “Trunk Formula Method” (Appendix B).

“Trunk Formula Method” is calculated as follows: Basic Tree Cost = (Appraised tree trunk increase X Unit tree cost + Installed tree cost) Appraised Value = (Basic tree cost X Species % X Condition % X Location %).

The trunk formula valuations are based on four tree factors; species, size (trunk cross sectional area), condition, and location. There are two steps to determine the overall value. The first step is to determine the “Basic Tree Cost” based on size and species rating which is determined by the *Species Classification and Group Assignment, 2004 Western Chapter Regional Supplement*.

The second part is to depreciate the value according to the location and condition of the trees.

The condition assessment and percentages are defined in the “Condition Rating” section of this report. The condition ratings deviate from the Guide’s condition assessment numerical rating system. The reason for this deviation is the Guide’s assessment criteria fails to account for significant health or structural issues creating high percentages for tree with either significant structural defects or health problems that could ultimately lead to failure or irreversible decline.

Location rating is an average of three factors; site, contribution, and placement. Site is determined by the relative property value where the trees are planted. The residential site would be classified as “very high” value with a 90 percent rating compared to similar sites in the area (ISA, 2000).

Contribution and placement is determined by the function and aesthetics the trees provide for the site and their location on the property. The percent of contribution and placement can range from 10 to 100 percent depending on the trees influence to the value of the property. These percentages ranged from 0 to 90 percent in my assessment.

A total of 44 trees were appraised for a rounded depreciated value of \$242,700.00 using the Trunk Formula Method (Appendix B2).

Appraisal worksheets are available upon request.



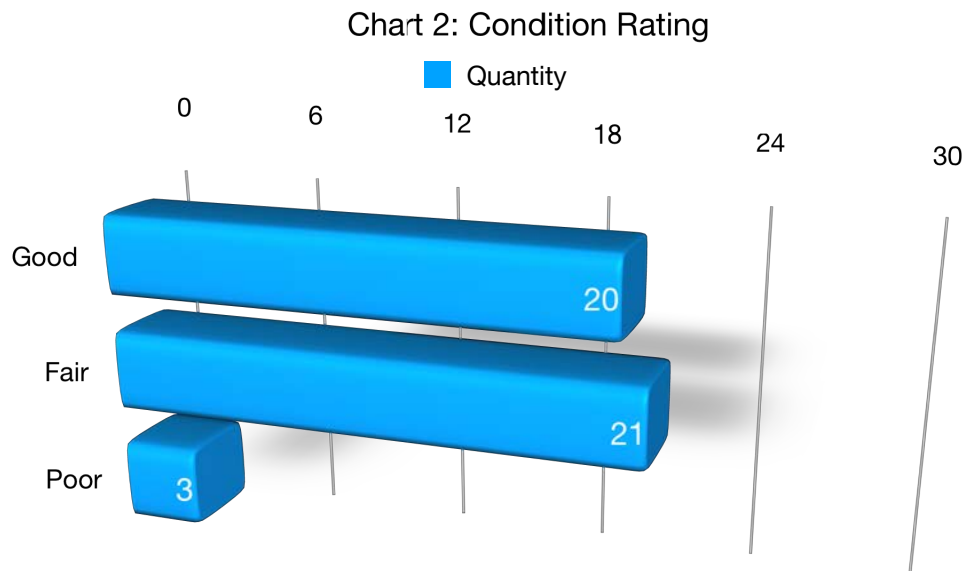
Discussion

Condition Rating

A tree's condition is a determination of its overall health, structure, and form. The assessment considered both the health and structure for a combined condition rating.

- 100% - Exceptional = Good health and structure with significant size, location or quality.
- 61-80% - Good = Normal vigor, well-developed structure, function and aesthetics not compromised with good longevity for the site.
- 41-60 % - Fair = Reduced vigor, damage, dieback, or pest problems, at least one significant structural problem or multiple moderate defects requiring treatment. Major asymmetry or deviation from the species normal habit, function and aesthetics compromised.
- 21-40% - Poor = Unhealthy and declining appearance with poor vigor, abnormal foliar color, size or density with potential irreversible decline. One serious structural defect or multiple significant defects that cannot be corrected and failure may occur at any time. Significant asymmetry and compromised aesthetics and intended use.
- 6-20% - Very Poor = Poor vigor and dying with little foliage in irreversible decline. Severe defects with the likelihood of failure being probable or imminent. Aesthetically poor with little or no function in the landscape.
- 0-5% - Dead/Unstable = Dead or imminently ready to fail.

Most of the trees are in either good or fair condition and three are simply in poor shape. The tree composition is typical for the area with naturally occurring mostly unmaintained oaks.

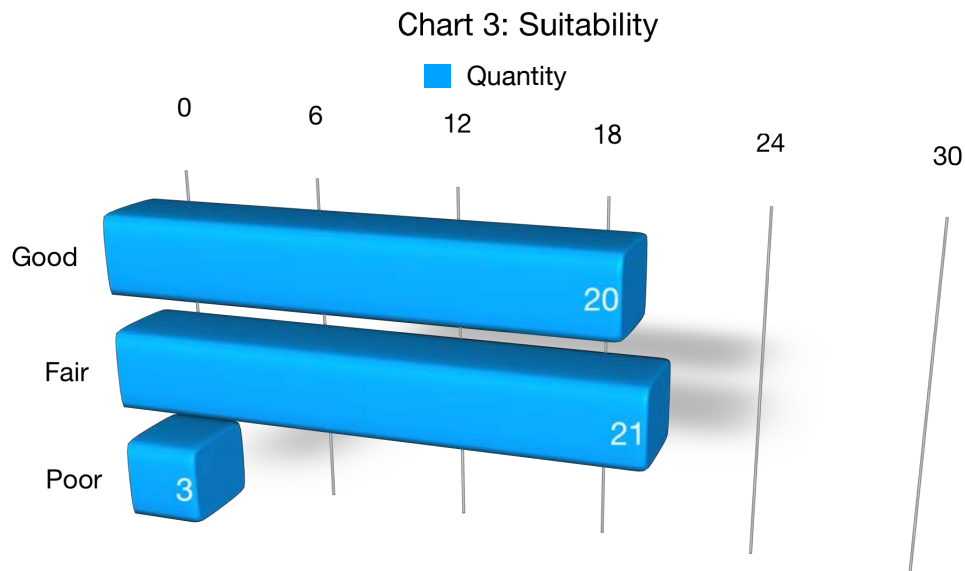


Suitability for Conservation

A tree's suitability for conservation is determined based on its health, structure, age, species and disturbance tolerances, proximity to cutting and filling, proximity to construction or demolition, and potential longevity using a scale of good, fair, or poor (Fite, K, and Smiley, E. T., 2016). Trees with good suitability have good vigor, structural stability, and potential longevity after construction.

- Good = Trees with good health, structural stability and longevity.
- Fair = Trees with fair health and/or structural defects that may be mitigated through treatment. These trees require more intense management and monitoring, and may have shorter life spans than those in the good category.
- Poor = Trees in poor health with significant structural defects that cannot be mitigated and will continue to decline regardless of treatment. The species or individual may possess characteristics that are incompatible or undesirable in landscape settings or unsuited for the intended use of the site.

The suitability ratings mirror the condition ratings for this assignment. I did not consider construction impact as part of the suitability rating at this point. The trees grow here naturally and would be considered to have relatively good suitability for retention absent of significant health or structural problems.

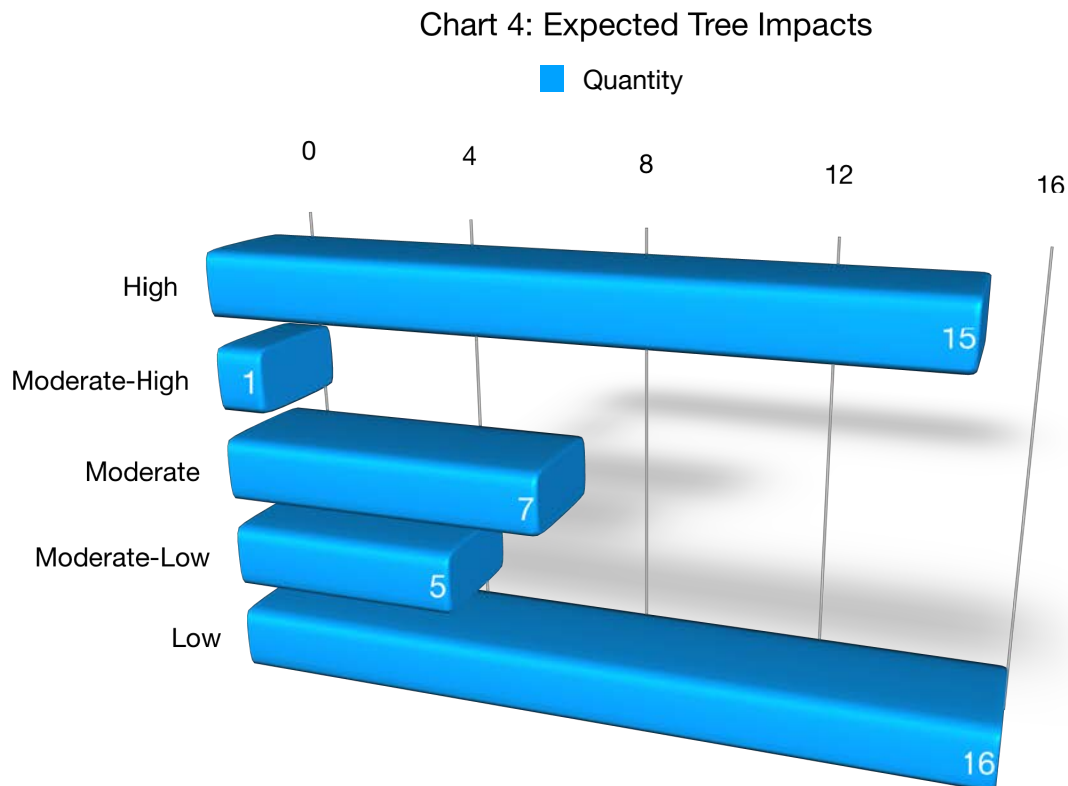


Expected Impact Level

Impact level defines how a tree may be affected by construction activity and proximity to the tree, and is described as low, moderate, or high. The following scale defines the impact rating:

- Low = The construction activity will have little influence on the tree.
- Moderate = The construction may cause future health or structural problems, and steps must be taken to protect the tree to reduce future problems.
- High = Tree structure and health will be compromised and removal is recommended, or other actions must be taken for the tree to remain. The tree is located in the building envelope.

There are fifteen trees that will require removal to construct the residence and driveway as constituted (Chart 4). One tree was rated as moderate-highly impacted, 7 moderate, 5 moderate-low and 16 will not be affected. Five of the fifteen to be highly impacted are Large Protected Trees (668, 675, 676, 677 and 691).



The table below lists the trees that will be required to be removed (Table 2).

Table 2: Trees Expected to be Removed

Tree Species	Number	Trunk Diameter (in.)	~ Canopy Diameter (ft.)	Condition and Suitability	Whats Causing Impact	Potential Mitigation
blue oak (Quercus douglasii)	652	12	25	Fair	Driveway	Four 24 inch box trees or two 36 inch box trees
blue oak (Quercus douglasii)	653	13	30	Fair	Driveway	Four 24 inch box trees or two 36 inch box trees
blue oak (Quercus douglasii)	656	16.5	30	Fair	Driveway	Four 24 inch box trees or two 36 inch box trees
blue oak (Quercus douglasii)	660	12	30	Good	Wall - Construction	Four 24 inch box trees or two 36 inch box trees
blue oak (Quercus douglasii)	662	19	40	Good	Building footprint	Six 24 inch box trees; or three 36 inch box trees
blue oak (Quercus douglasii)	665	12	25	Good	Retaining wall and Construction	Four 24 inch box trees or two 36 inch box trees
blue oak (Quercus douglasii)	668	10, 18	35	Poor	Building footprint	Four 24 inch box trees or two 36 inch box trees
blue oak (Quercus douglasii)	671	12	25	Fair	Building footprint	Four 24 inch box trees or two 36 inch box trees
blue oak (Quercus douglasii)	675	13, 12	30	Fair	Building footprint	Four 24 inch box trees or two 36 inch box trees
coast live oak (Quercus agrifolia)	676	24	40	Poor	Construction - Retaining Wall - Marked Retain	Six 24 inch box trees; or three 36 inch box trees
coast live oak (Quercus agrifolia)	677	19, 20, 18	50	Fair	House	Six 24 inch box trees; or three 36 inch box trees



Tree Species	Number	Trunk Diameter (in.)	~ Canopy Diameter (ft.)	Condition and Suitability	Whats Causing Impact	Potential Mitigation
blue oak (Quercus douglasii)	679	13	25	Good	Driveway - Tag missing	Four 24 inch box trees or two 36 inch box trees
blue oak (Quercus douglasii)	680	14	25	Fair	Driveway - Tag missing	Four 24 inch box trees or two 36 inch box trees
blue oak (Quercus douglasii)	690	16	30	Fair	Driveway	Four 24 inch box trees or two 36 inch box trees
coast live oak (Quercus agrifolia)	691	24	45	Poor	Driveway	Six 24 inch box trees; or three 36 inch box trees



Mitigation for Removals

The table below indicates the recommended replacement values (Table 3). There are nine trees that would require either four 24 inch box or two 36 inch box per tree and four requiring six 24 inch box or three 36 inch box replacements. The removals would require some combination of sixty-eight 24 inch box or thirty-four 36 inch box replacements. Alternatively it may be possible to create an approved landscape plan or provide an in-lieu payment.

Table 3: Town of Los Gatos Tree Canopy - Replacement Standard

Canopy Size of Removed Tree (1)	Replacement Requirement (2) (4)	Single Family Residential Replacement Option (3) (4)
10 feet or less	Two 24 inch box trees	Two 15 gallon trees
More than 10 feet to 25 feet	Three 24 inch box trees	Three 15 gallon trees
More than 25 feet to 40 feet	Four 24 inch box trees or two 36 inch box trees	Four 15 gallon trees
More than 40 feet to 55 feet	Six 24 inch box trees; or three 36 inch box trees	Not available
Greater than 55 feet	Ten 24 inch box trees; or five 36 inch box trees	Not available

¹To measure an asymmetrical canopy of a tree, the widest measurement shall be used to determine canopy size.

²Often, it is not possible to replace a single large, older tree with an equivalent tree(s). In this case, the tree may be replaced with a combination of both the Tree Canopy Replacement Standard and in-lieu payment in an amount set forth by Town Council resolution paid to the Town Tree Replacement Fund.

³Single Family Residential Replacement Option is available for developed single family residential lots under 10,000 square feet that are not subject to the Town's Hillside Development Standards and Guidelines. All 15-gallon trees must be planted on-site. Any in-lieu fees for single family residential shall be based on 24" box tree rates as adopted by Town Council.

⁴Replacement Trees shall be approved by the Town Arborist and shall be of a species suited to the available planting location, proximity to structures, overhead clearances, soil type, compatibility with surrounding canopy and other relevant factors. Replacement with native species shall be strongly encouraged. Replacement requirements in the Hillside shall comply with the Hillside Development Standards and Guidelines Appendix A and Section 29.10.0987 Special Provisions--Hillsides.



Tree Protection

Typically there are three different tree protection schemes which are called Type I, Type II and Type III trunk protection only (Figures 1, 2, and 3). Tree protection focuses on avoiding damage to the roots, trunk, or scaffold branches (Appendix D). The most current accepted method for determining the TPZ is to use a formula based on species tolerance, tree age/vigor, and trunk diameter (Matheny, N. and Clark, J. 1998) (Fite, K, and Smiley, E. T., 2016). Preventing mechanical damage to the trunk from equipment or hand tools can be accomplished by wrapping the main stem with straw wattle or using vertical timbers (Figure 3).

Both the *ISA Best Management Practices: Root Management, 2017* and *ISA Best Management Practices: Managing trees during construction, second edition, 2016* indicate linear cuts should be beyond six times the trunk diameter distance when affected on only one side.

Tree protection for this project would consist of a modified Type I scheme with the retained trees all located around the perimeter of the site. The tree protection fence should be placed no closer than six times the trunk diameter distances in feet and preferably twelve.

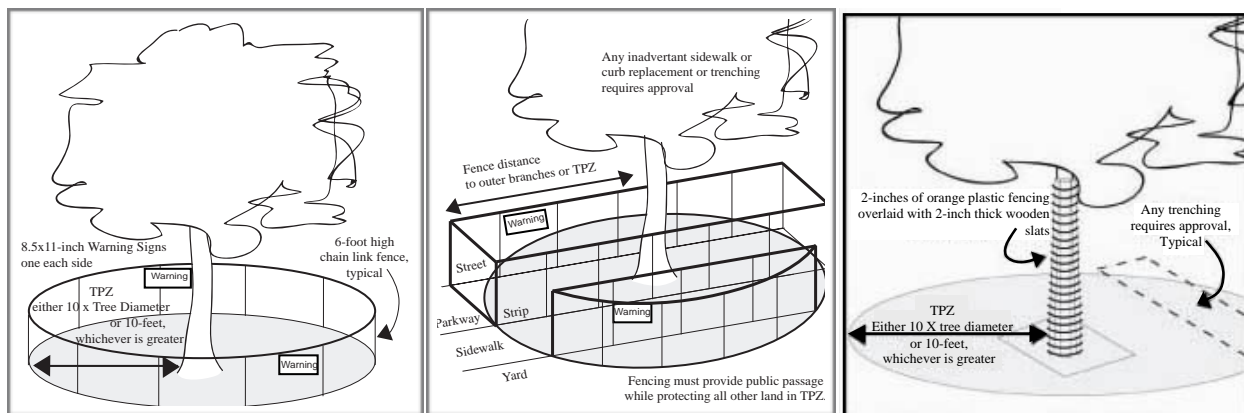


Figure 1: Type I Tree protection with fence placed at a radius of ten times the trunk diameter. Image City of Palo Alto 2006.

Figure 2: Type II Tree protection with fence placed along the sidewalk and curb to enclose the tree. Image City of Palo Alto 2006.

Figure 3: Type III Tree protection with trunk protected by a barrier to prevent mechanical damage. Image City of Palo Alto 2006.



The table below lists the trees and the recommended protection distances or zones of no disturbance (Table 4).

Table 4: Recommended Protection Distances

Tree Species	Number	Trunk Diameter (in.)	Expected Impact	Whats Causing Impact	6 X DBH Radius (ft.)	12 times DBH Radius (ft.)
blue oak (Quercus douglasii)	1	15	Low		7.5	15
blue oak (Quercus douglasii)	2	13	Low		6.5	13
blue oak (Quercus douglasii)	620	11	Low		5.5	11
blue oak (Quercus douglasii)	622	13	Moderate	Driveway Wall	6.5	13
blue oak (Quercus douglasii)	623	11	Low		5.5	11
blue oak (Quercus douglasii)	624	11	Low		5.5	11
blue oak (Quercus douglasii)	626	10, 8	Low		5	10
blue oak (Quercus douglasii)	627	12	Low		6	12
blue oak (Quercus douglasii)	628	15	Moderate-Low	Driveway	7.5	15
blue oak (Quercus douglasii)	629	17	Moderate-Low	Driveway	8.5	17
coast live oak (Quercus agrifolia)	630	12	Moderate-Low	Driveway	6	12
coast live oak (Quercus agrifolia)	634	16, 13, 15,16	Low		8	16
blue oak (Quercus douglasii)	652	12	High	Driveway	6	12
blue oak (Quercus douglasii)	653	13	High	Driveway	6.5	13
blue oak (Quercus douglasii)	654	14	Low		7	14
blue oak (Quercus douglasii)	655	12	Moderate	Driveway	6	12



Tree Species	Number	Trunk Diameter (in.)	Expected Impact	Whats Causing Impact	6 X DBH Radius (ft.)	12 times DBH Radius (ft.)
blue oak (Quercus douglasii)	656	16.5	High	Driveway	8.25	16.5
blue oak (Quercus douglasii)	657	7, 11, 10	Moderate	Driveway Wall	5	10
blue oak (Quercus douglasii)	658	21	Moderate	Driveway Wall	10.5	21
blue oak (Quercus douglasii)	659	12	Low		6	12
blue oak (Quercus douglasii)	660	12	High	Wall - Construction	6	12
blue oak (Quercus douglasii)	661	18	Low		9	18
blue oak (Quercus douglasii)	662	19	High	Building footprint	9.5	19
blue oak (Quercus douglasii)	663	12	Low		6	12
blue oak (Quercus douglasii)	664	18	Low		9	18
blue oak (Quercus douglasii)	665	12	High	Retaining wall and Construction	6	12
blue oak (Quercus douglasii)	666	18	Low		9	18
coast live oak (Quercus agrifolia)	667	14	Low		7	14
blue oak (Quercus douglasii)	668	10, 18	High	Building footprint	9	18
blue oak (Quercus douglasii)	669	19	Moderate-High	Retaining wall and Construction	9.5	19
coast live oak (Quercus agrifolia)	670	18, 12, 6, 12	Low		6	12
blue oak (Quercus douglasii)	671	12	High	Building footprint	6	12



Tree Species	Number	Trunk Diameter (in.)	Expected Impact	Whats Causing Impact	6 X DBH Radius (ft.)	12 times DBH Radius (ft.)
blue oak (Quercus douglasii)	675	13, 12	High	Building footprint	6	12
coast live oak (Quercus agrifolia)	676	24	High	Construction - Retaining Wall - Marked Retain	12	24
coast live oak (Quercus agrifolia)	677	19, 20, 18	High	House	9	18
coast live oak (Quercus agrifolia)	678	19, 21, 16, 24	Moderate		8	16
blue oak (Quercus douglasii)	679	13	High	Driveway - Tag missing	6.5	13
blue oak (Quercus douglasii)	680	14	High	Driveway - Tag missing	7	14
blue oak (Quercus douglasii)	681	12	Moderate	Driveway - Tag missing	6	12
blue oak (Quercus douglasii)	682	15	Moderate	Driveway Hammerhead	7.5	15
blue oak (Quercus douglasii)	690	16	High	Driveway	8	16
coast live oak (Quercus agrifolia)	691	24	High	Driveway	12	24
coast live oak (Quercus agrifolia)	692	18	Moderate-Low	Driveway	9	18
blue oak (Quercus douglasii)	693	17	Moderate-Low	Driveway	8.5	17



Conclusion

The inventory contains 44 trees comprised of 2 different species (coast live oak and blue oak). Nine oaks are considered Large Protected, thirty-five are Protected, and none are Exempt. Most of the trees are in either good or fair condition and three are simply in poor shape and the suitability ratings mirror the condition ratings. The trees grow here naturally and would be considered to have relatively good suitability for retention absent of significant health or structural problems. There are fifteen trees that will require removal to construct the residence and driveway as proposed. One tree was rated as moderate-highly impacted, 7 moderate, 5 moderate-low and 16 will not be affected. Five of the fifteen to be highly impacted are Large Protected Trees (668, 675, 676, 677 and 691). The removals would require some combination of sixty-eight 24 inch box or thirty-four 36 inch box replacements. Tree protection for this project would consist of a modified Type I scheme with the retained trees all located around the perimeter of the site. The tree protection fence should be placed no closer than six times the trunk diameter distances in feet and preferably twelve. A total of 44 trees were appraised for a rounded depreciated value of \$242,700.00 using the Trunk Formula Method.



Recommendations

Pre-construction and Planning Phase

1. Place tree numbers and tree protection fence locations and guidelines on the plans including the grading, drainage, and utility plans. Create a separate plan sheet that includes all protection measures labeled “T-1 Tree Protection Plan.”
2. Place tree protection fence around those to remain a radial distance of 6 to 12 times the trunk diameter distances (Table 4, Pg 12).
3. Provide a landscape plan that accounts for the loss in tree canopy to include in tabular form the required replacements in accordance with the Town’s Tree Canopy Replacement Standard.
4. All tree maintenance and care shall be performed by a qualified arborist with a C-61/D-49 California Contractors License. Tree maintenance and care shall be specified in writing according to American National Standard for Tree Care Operations: *Tree, Shrub and Other Woody Plant Management: Standard Practices* parts 1 through 10 and adhere to ANSI Z133.1 safety standards and local regulations. All maintenance is to be performed according to ISA Best Management Practices.
5. Refer to Appendix D for general tree protection guidelines including recommendations for arborist assistance while working under trees, trenching, or excavation within a trees drip line or designated TPZ/CRZ.
6. Provide a copy of this report to all contractors and project managers, including the architect, civil engineer, and landscape designer or architect. It is the responsibility of the owner to ensure all parties are familiar with this document.
7. Arrange a pre-construction meeting with the project arborist or landscape architect to verify tree protection is in place, with the correct materials, and at the proper distances.

Construction and Post-Construction Phase

1. Monitor the health and structure of all trees for any changes in condition.
2. Perform any other mitigation measures to help ensure long term survival.



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Glossary of Terms

Basic Tree Cost: The cost of replacement for a perfect specimen of a particular species and cross sectional area prior to location and condition depreciation.

Cost Approach: An indication of value by adding the land value to the depreciated value of improvements.

Defect: An imperfection, weakness, or lack of something necessary. In trees defects are injuries, growth patterns, decay, or other conditions that reduce the tree's structural strength.

Diameter at breast height (DBH): Measures at 1.4 meters (4.5 feet) above ground in the United States, Australia (arboriculture), New Zealand, and when using the Guide for Plant Appraisal, 9th edition; at 1.3 meters (4.3 feet) above ground in Australia (forestry), Canada, the European Union, and in UK forestry; and at 1.5 meters (5 feet) above ground in UK arboriculture.

Drip Line: Imaginary line defined by the branch spread or a single plant or group of plants. The outer extent of the tree crown.

Mechanical damage: Physical damage caused by outside forces such as cutting, chopping or any mechanized device that may strike the tree trunk, roots or branches.

Scaffold branches: Permanent or structural branches that form the scaffold architecture or structure of a tree.

Straw wattle: also known as straw worms, bio-logs, straw noodles, or straw tubes are man made cylinders of compressed, weed free straw (wheat or rice), 8 to 12 inches in diameter and 20 to 25 feet long. They are encased in jute, nylon, or other photo degradable materials, and have an average weight of 35 pounds.

Topping: Inappropriate pruning technique to reduce tree size. Cutting back a tree to a predetermined crown limit, often at internodes.

Tree Protection Zone (TPZ): Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction or development.

Tree Risk Assessment: Process of evaluating what unexpected things could happen, how likely it is, and what the likely outcomes are. In tree management, the systematic process to determine the level of risk posed by a tree, tree part, or group of trees.

Trunk: Stem of a tree.



Trunk Formula Method: Method to appraise the monetary value of trees considered too large to be replaced with nursery or field grown stock. Based on developing a representative unit cost for replacement with the same or comparable species of the same size and in the same place, subject to depreciation for various factors. Contrast with replacement cost method.

Volunteer: A tree, not planted by human hands, that begins to grow on residential or commercial property. Unlike trees that are brought in and installed on property, volunteer trees usually spring up on their own from seeds placed onto the ground by natural causes or accidental transport by people. Normally, volunteer trees are considered weeds and removed, but many desirable and attractive specimens have gone on to become permanent residents on many public and private grounds.



Appendix A: Tree Inventory Map and Site Plan

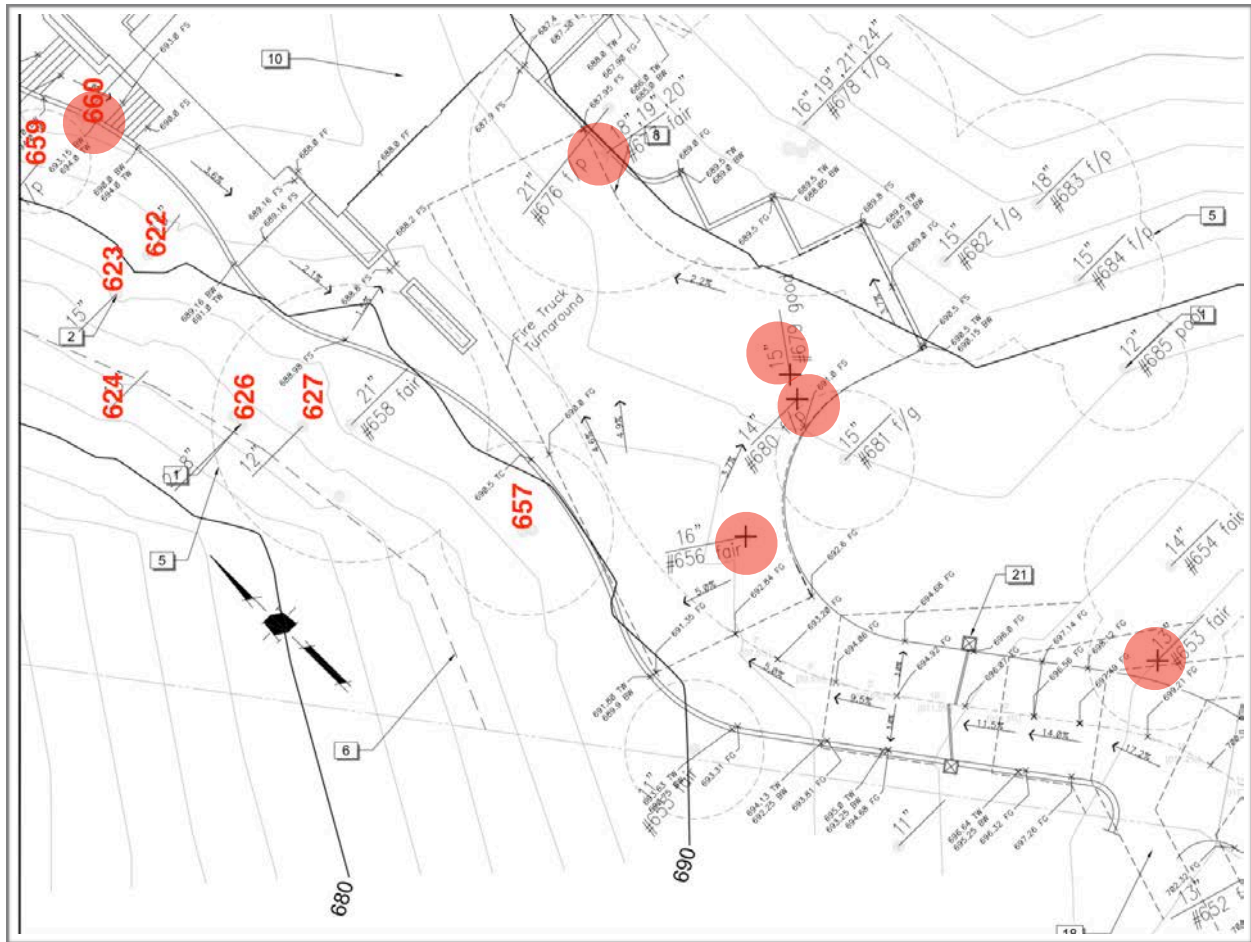
A1: Driveway entrance

Sheet taken from L1 (Red circles indicate removals/highly impacted)



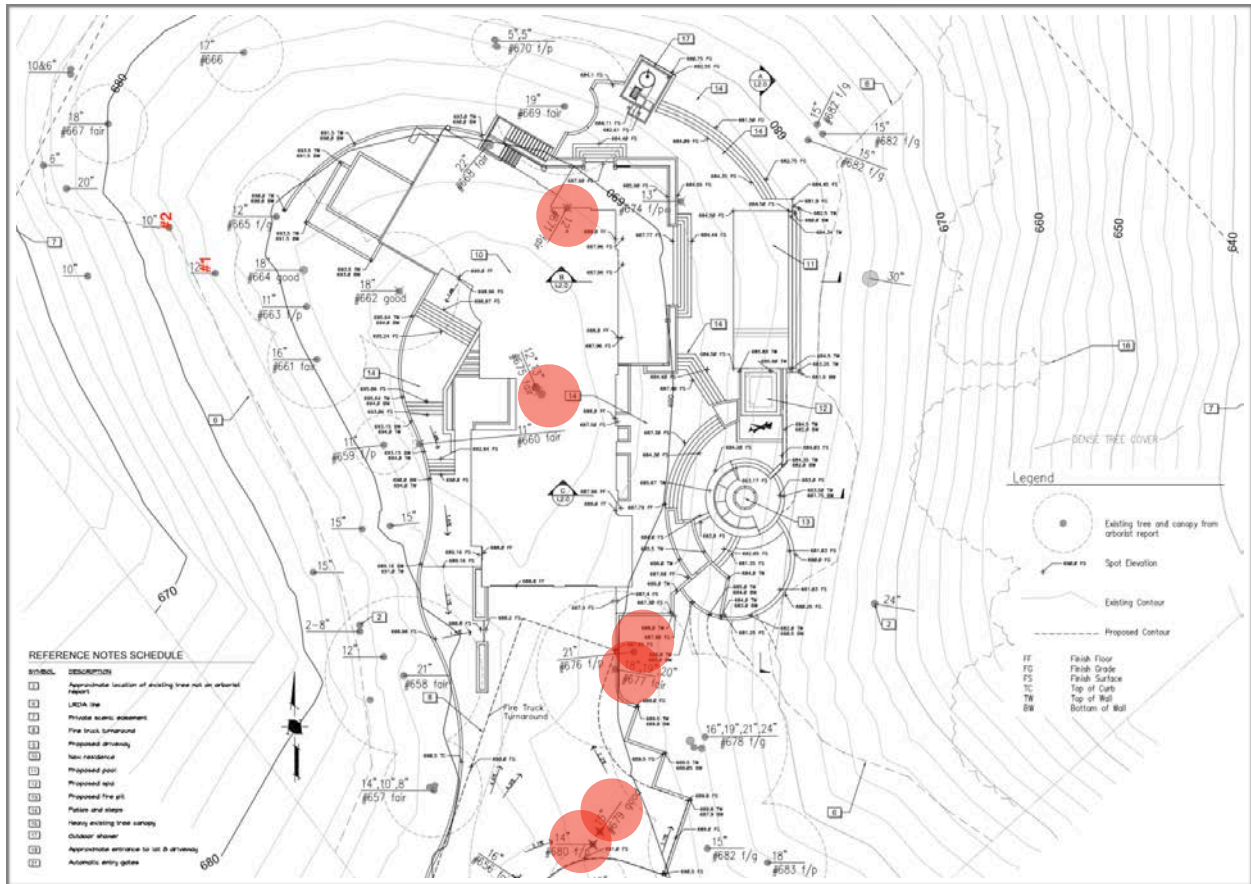
A2: Driveway and Hammerhead

Sheet taken from L1 (Red circles indicate removals/highly impacted)



A3: Residence

Sheet taken from L2 (Red circles indicate removals/highly impacted)



Appendix B: Tree Inventory and Assessment Tables

B1: Inventory and Assessment

Table 5: Inventory and Assessment

Tree Species	Number	Trunk Diameter (in.)	~ Canopy Diameter (ft.)	Condition and Suitability	Expected Impact	Los Gatos Large Protected Tree
blue oak (<i>Quercus douglasii</i>)	1	15	30	Good	Low	No
blue oak (<i>Quercus douglasii</i>)	2	13	30	Good	Low	No
blue oak (<i>Quercus douglasii</i>)	620	11	25	Good	Low	No
blue oak (<i>Quercus douglasii</i>)	622	13	25	Good	Moderate	No
blue oak (<i>Quercus douglasii</i>)	623	11	25	Good	Low	No
blue oak (<i>Quercus douglasii</i>)	624	11	25	Good	Low	No
blue oak (<i>Quercus douglasii</i>)	626	10, 8	25	Fair	Low	No
blue oak (<i>Quercus douglasii</i>)	627	12	25	Good	Low	No
blue oak (<i>Quercus douglasii</i>)	628	15	35	Fair	Moderate-Low	No
blue oak (<i>Quercus douglasii</i>)	629	17	40	Good	Moderate-Low	No
coast live oak (<i>Quercus agrifolia</i>)	630	12	18	Fair	Moderate-Low	No
coast live oak (<i>Quercus agrifolia</i>)	634	16, 13, 15, 16	45	Fair	Low	Yes
blue oak (<i>Quercus douglasii</i>)	652	12	25	Fair	High	No
blue oak (<i>Quercus douglasii</i>)	653	13	30	Fair	High	No
blue oak (<i>Quercus douglasii</i>)	654	14	25	Good	Low	No
blue oak (<i>Quercus douglasii</i>)	655	12	25	Good	Moderate	No
blue oak (<i>Quercus douglasii</i>)	656	16.5	30	Fair	High	No
blue oak (<i>Quercus douglasii</i>)	657	7, 11, 10	35	Good	Moderate	Yes
blue oak (<i>Quercus douglasii</i>)	658	21	40	Good	Moderate	No
blue oak (<i>Quercus douglasii</i>)	659	12	30	Good	Low	No
blue oak (<i>Quercus douglasii</i>)	660	12	30	Good	High	No
blue oak (<i>Quercus douglasii</i>)	661	18	35	Good	Low	No
blue oak (<i>Quercus douglasii</i>)	662	19	40	Good	High	No



Tree Species	Number	Trunk Diameter (in.)	~ Canopy Diameter (ft.)	Condition and Suitability	Expected Impact	Los Gatos Large Protected Tree
blue oak (Quercus douglasii)	663	12	25	Fair	Low	No
blue oak (Quercus douglasii)	664	18	40	Good	Low	No
blue oak (Quercus douglasii)	665	12	25	Good	High	No
blue oak (Quercus douglasii)	666	18	30	Fair	Low	No
coast live oak (Quercus agrifolia)	667	14	30	Fair	Low	No
blue oak (Quercus douglasii)	668	10, 18	35	Poor	High	Yes
blue oak (Quercus douglasii)	669	19	45	Fair	Moderate-High	No
coast live oak (Quercus agrifolia)	670	18, 12, 6, 12	45	Fair	Low	Yes
blue oak (Quercus douglasii)	671	12	25	Fair	High	No
blue oak (Quercus douglasii)	675	13, 12	30	Fair	High	Yes
coast live oak (Quercus agrifolia)	676	24	40	Poor	High	Yes
coast live oak (Quercus agrifolia)	677	19, 20, 18	50	Fair	High	Yes
coast live oak (Quercus agrifolia)	678	19, 21, 16, 24	50	Fair	Moderate	Yes
blue oak (Quercus douglasii)	679	13	25	Good	High	No
blue oak (Quercus douglasii)	680	14	25	Fair	High	No
blue oak (Quercus douglasii)	681	12	25	Fair	Moderate	No
blue oak (Quercus douglasii)	682	15	35	Fair	Moderate	No
blue oak (Quercus douglasii)	690	16	30	Fair	High	No
coast live oak (Quercus agrifolia)	691	24	45	Poor	High	Yes
coast live oak (Quercus agrifolia)	692	18	35	Fair	Moderate-Low	No
blue oak (Quercus douglasii)	693	17	35	Good	Moderate-Low	No



B2: Appraisal Summary

Table 6: Appraisal Summary

Tree Species	Number	Trunk Diameter	Condition	Location	Species Rating	Rounded Value
blue oak (Quercus douglasii)	1	15	75.0%	63.33%	90.00%	\$6,000.00
blue oak (Quercus douglasii)	2	13	75.0%	63.33%	90.00%	\$4,520.00
blue oak (Quercus douglasii)	620	11	75.0%	63.33%	90.00%	\$3,280.00
blue oak (Quercus douglasii)	622	13	75.0%	63.33%	90.00%	\$4,520.00
blue oak (Quercus douglasii)	623	11	75.0%	63.33%	90.00%	\$3,280.00
blue oak (Quercus douglasii)	624	11	75.0%	63.33%	90.00%	\$3,280.00
blue oak (Quercus douglasii)	626	10, 8	50.0%	63.33%	90.00%	\$3,020.00
blue oak (Quercus douglasii)	627	12	75.0%	63.33%	90.00%	\$3,870.00
blue oak (Quercus douglasii)	628	15	50.0%	63.33%	90.00%	\$3,980.00
blue oak (Quercus douglasii)	629	17	75.0%	63.33%	90.00%	\$7,600.00
coast live oak (Quercus agrifolia)	630	12	50.0%	63.33%	90.00%	\$1,560.00
coast live oak (Quercus agrifolia)	634	16, 13, 15,16	75.0%	63.33%	90.00%	\$15,460.00
blue oak (Quercus douglasii)	652	12	50.0%	63.33%	90.00%	\$3,010.00
blue oak (Quercus douglasii)	653	13	50.0%	63.33%	90.00%	\$5,200.00
blue oak (Quercus douglasii)	654	14	75.0%	63.33%	90.00%	\$5,200.00
blue oak (Quercus douglasii)	655	12	75.0%	63.33%	90.00%	\$4,800.00
blue oak (Quercus douglasii)	656	16.5	50.0%	63.33%	90.00%	\$1,420.00
blue oak (Quercus douglasii)	657	7, 11, 10	75.0%	63.33%	90.00%	\$18,750.00
blue oak (Quercus douglasii)	658	21	75.0%	63.33%	90.00%	\$3,870.00
blue oak (Quercus douglasii)	659	12	75.0%	63.33%	90.00%	\$8,500.00
blue oak (Quercus douglasii)	660	12	75.0%	63.33%	90.00%	\$9,500.00
blue oak (Quercus douglasii)	661	18	75.0%	63.33%	90.00%	\$2,580.00
blue oak (Quercus douglasii)	662	19	75.0%	63.33%	90.00%	\$8,500.00
blue oak (Quercus douglasii)	663	12	50.0%	63.33%	90.00%	\$3,870.00
blue oak (Quercus douglasii)	664	18	75.0%	63.33%	90.00%	\$5,700.00
blue oak (Quercus douglasii)	665	12	75.0%	63.33%	90.00%	\$3,480.00



Tree Species	Number	Trunk Diameter	Condition	Location	Species Rating	Rounded Value
blue oak (Quercus douglasii)	666	18	50.0%	63.33%	90.00%	\$910.00
coast live oak (Quercus agrifolia)	667	14	50.0%	63.33%	90.00%	\$3,770.00
blue oak (Quercus douglasii)	668	10, 18	25.0%	63.33%	90.00%	\$8,300.00
blue oak (Quercus douglasii)	669	19	50.0%	63.33%	90.00%	\$720.00
coast live oak (Quercus agrifolia)	670	18, 12, 6, 12	50.0%	63.33%	90.00%	\$12,200.00
blue oak (Quercus douglasii)	671	12	50.0%	63.33%	90.00%	\$6,300.00
blue oak (Quercus douglasii)	675	13, 12	75.0%	63.33%	90.00%	\$12,200.00
coast live oak (Quercus agrifolia)	676	24	25.0%	63.33%	90.00%	\$2,090.00
coast live oak (Quercus agrifolia)	677	19, 20, 18	50.0%	63.33%	90.00%	\$6,700.00
coast live oak (Quercus agrifolia)	678	19, 21, 16, 24	50.0%	63.33%	90.00%	\$11,300.00
blue oak (Quercus douglasii)	679	13	75.0%	63.33%	90.00%	\$2,580.00
blue oak (Quercus douglasii)	680	14	50.0%	63.33%	90.00%	\$2,580.00
blue oak (Quercus douglasii)	681	12	50.0%	63.33%	90.00%	\$5,000.00
blue oak (Quercus douglasii)	682	15	50.0%	63.33%	90.00%	\$5,700.00
blue oak (Quercus douglasii)	690	16	50.0%	63.33%	90.00%	\$4,510.00
coast live oak (Quercus agrifolia)	691	24	25.0%	63.33%	90.00%	\$5,600.00
coast live oak (Quercus agrifolia)	692	18	50.0%	63.33%	90.00%	\$2,980.00
blue oak (Quercus douglasii)	693	17	75.0%	63.33%	90.00%	\$4,510.00



Appendix C: Photographs

C1: Existing access



C2: Building area



C3: Building area



C4: Building area



Appendix D: Tree Protection Guidelines

Section 29.10.1005. - Protection of Trees During Construction

Tree Protection Zones and Fence Specifications

1. **Size and materials:** Six (6) foot high chain link fencing, mounted on two-inch diameter galvanized iron posts, shall be driven into the ground to a depth of at least two (2) feet at no more than ten-foot spacing. For paving area that will not be demolished and when stipulated in a tree preservation plan, posts may be supported by a concrete base.
2. **Area type to be fenced:** Type I: Enclosure with chain link fencing of either the entire dripline area or at the tree protection zone (TPZ), when specified by a certified or consulting arborist. Type II: Enclosure for street trees located in a planter strip: chain link fence around the entire planter strip to the outer branches. Type III: Protection for a tree located in a small planter cutout only (such as downtown): orange plastic fencing shall be wrapped around the trunk from the ground to the first branch with two-inch wooden boards bound securely on the outside. Caution shall be used to avoid damaging any bark or branches.
3. **Duration of Type I, II, III fencing:** Fencing shall be erected before demolition, grading or construction permits are issued and remain in place until the work is completed. Contractor shall first obtain the approval of the project arborist on record prior to removing a tree protection fence.
4. **Warning Sign:** Each tree fence shall have prominently displayed an eight and one-half-inch by eleven-inch sign stating: "Warning—Tree Protection Zone—This fence shall not be removed and is subject to penalty according to Town Code 29.10.1025." Text on the signs should be in both English and Spanish (Appendix E).

All persons, shall comply with the following precautions

1. Prior to the commencement of construction, install the fence at the dripline, or tree protection zone (TPZ) when specified in an approved arborist report, around any tree and/or vegetation to be retained which could be affected by the construction and prohibit any storage of construction materials or other materials, equipment cleaning, or parking of vehicles within the TPZ. The dripline shall not be altered in any way so as to increase the encroachment of the construction.
2. Prohibit all construction activities within the TPZ, including but not limited to: excavation, grading, drainage and leveling within the dripline of the tree unless approved by the Director.
3. Prohibit disposal or depositing of oil, gasoline, chemicals or other harmful materials within the dripline of or in drainage channels, swales or areas that may lead to the dripline of a protected tree.
4. Prohibit the attachment of wires, signs or ropes to any protected tree.
5. Design utility services and irrigation lines to be located outside of the dripline when feasible.



6. Retain the services of a certified or consulting arborist who shall serve as the project arborist for periodic monitoring of the project site and the health of those trees to be preserved. The project arborist shall be present whenever activities occur which may pose a potential threat to the health of the trees to be preserved and shall document all site visits.
7. The Director and project arborist shall be notified of any damage that occurs to a protected tree during construction so that proper treatment may be administered.

Monitoring

Any trenching, construction or demolition that is expected to damage or encounter tree roots should be monitored by the project arborist or a qualified ISA Certified Arborist and should be documented.

The site should be evaluated by the project arborist or a qualified ISA Certified Arborist after construction is complete, and any necessary remedial work that needs to be performed should be noted.

Root Pruning

Roots greater than two inches in diameter shall not be cut. When roots over two inches in diameter are encountered and are authorized to be cut or removed, they should be pruned by hand with loppers, handsaw, reciprocating saw, or chain saw rather than left crushed or torn. Roots should be cut beyond sinker roots or outside root branch junctions and be supervised by the project arborist. When completed, exposed roots should be kept moist with burlap or backfilled within one hour.

Boring or Tunneling

Boring machines should be set up outside the drip line or established Tree Protection Zone. Boring may also be performed by digging a trench on both sides of the tree until roots one inch in diameter are encountered and then hand dug or excavated with an Air Spade® or similar air or water excavation tool. Bore holes should be adjacent to the trunk and never go directly under the main stem to avoid oblique (heart) roots. Bore holes should be a minimum of three feet deep.

Tree Pruning and Removal Operations

All tree pruning or removals should be performed by a qualified arborist with a C-61/D-49 California Contractors License. Treatment, including pruning, shall be specified in writing according to the most recent ANSI A-300A Standards and Limitations and performed according to ISA Best Management Practices while adhering to ANSI Z133.1 safety standards. Trees that need to be removed or pruned should be identified in the pre-construction walk through.



Appendix E: Tree Protection Signs

E1: English

Warning
Tree Protection Zone

**This Fence Shall Not Be Removed
And Is Subject To Penalty According To
Town Code 29.10.1025**



E2: Spanish

Cuidado Zona De Arbol Pretejido

Esta valla no podrán ser sacados
Y está sujeta a sanción en función de
Código Ciudad del 29.101025



Qualifications, Assumptions, and Limiting Conditions

Any legal description provided to the consultant is assumed to be correct. Any titles or ownership of properties are assumed to be good and marketable. All property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

All property is presumed to be in conformance with applicable codes, ordinances, statutes, or other regulations.

Care has been taken to obtain information from reliable sources. However, the consultant cannot be responsible for the accuracy of information provided by others.

The consultant shall not be required to give testimony or attend meetings, hearings, conferences, mediations, arbitration, or trials by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.

This report and any appraisal value expressed herein represent the opinion of the consultant, and the consultant's fee is not contingent upon the reporting of a specified appraisal value, a stipulated result, or the occurrence of a subsequent event.

Sketches, drawings, and photographs in this report are intended for use as visual aids, are not necessarily to scale, and should not be construed as engineering or architectural reports or surveys. The reproduction of information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is only for coordination and ease of reference. Inclusion of said information with any drawings or other documents does not constitute a representation as to the sufficiency or accuracy of said information.

Unless otherwise expressed: a) this report covers only examined items and their condition at the time of inspection; and b) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that structural problems or deficiencies of plants or property may not arise in the future.



Certification of Performance

I Richard Gessner, Certify:

That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and Terms of Assignment;

That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;

That the analysis, opinions and conclusions stated herein are my own;

That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;

That no one provided significant professional assistance to the consultant, except as indicated within the report.

That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any other subsequent events;

I further certify that I am a Registered Consulting Arborist® with the American Society of Consulting Arborists, and that I acknowledge, accept and adhere to the ASCA Standards of Professional Practice. I am an International Society of Arboriculture Board Certified Master Arborist®. I have been involved with the practice of Arboriculture and the care and study of trees since 1998.

Richard J. Gessner



ASCA Registered Consulting Arborist® #496
 ISA Board Certified Master Arborist® WE-4341B
 ISA Tree Risk Assessor Qualified
 CA Qualified Applicators License QL 104230



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