

ARBORIST REPORT

Guadalupe 4 NE of 3rd

Construction Impact Report

Submitted to:

Sara Davis
City Forester
P.O. Box CC
Carmel by the Sea
CA 9329

August 13, 2020



Tree Care Professionals Serving Communities Who Care about Trees www.WCAINC.com

Prepared by:

Glenn O. Whitlock-Reeve

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Summary

West Coast Arborists Inc. is contracted by the City of Carmel-by-the-Sea for arborist services. I was requested to assess trees impacted by construction at Guadalupe 4NE of 3rd, by the city forester Sara Davis. The assessment was requested to include a risk assessment and appraisal of trees most impacted by construction. 8 trees and 1-stump were included in the assessment, 3-trees/stems were determined to have a significant to severe impact from construction and will require extensive trimming, support systems if retained. The seven trees/stems were appraised for their value and the **assignment result**¹ total value was \$45,300.00. Risk assessment of affected trees determined that 4 of the trees/stems pose a high risk to surrounding property/people.

Background

West Coast Arborists Inc. (WCA) was contacted by the City of Carmel-by-the-Sea's forester Sara Davis for arborist services in August of 2020. Ms. Davis requested I assess established trees at Dolores 7 SW of 13th, that had been impacted by construction. I visited the site on August 12, 2020 and have included my findings as follows.

Assignment

The City of Carmel-by-the-Sea has contracted West Coast Arborists Inc. to perform the following services.

1. Visit the site and perform a general tree condition and observation report.
2. Provide an estimated value for trees that display signs of significant-severe root damage.
3. Provide a risk assessment of established trees on the site.
4. Summarize findings in a formal report.

Limitations of assignment

My assessment is limited to what was visible at grade level on the day of my assessment and information provided to me by the city. Diameters of trees was measured using a D-Tape when no obstructions were present, diameters of trees with tree protection boards were estimated by measuring across the long side of the trunk visible through the boards. Tree #4's Diameter was provided by the City Forester.

¹ Terms in **Bold** are defined in the glossary.



Observations

A total of 8 trees and 1 Stump were present on the property, including 1-Monterey Cypress (*Hesperocyparis macrocarpa*), 3 Privet Trees (*Ligustrum confusum*) and 3-Coast Live Oaks (*Quercus agrifolia*). Tree #5 is a multi-stem Coast Live Oak that was considered 1-tree for purposes explained later in this report. Excavation on site appears to have consisted of a complete tear down of a house for a complete house rebuild. Excavation was as deep as 3-feet within 2-feet of established trees on site. Large roots up to 6-inches could be seen broken in the excavated walls. Root zone disturbances accounted for as much as 50% of 3-trees on site and resulted in an emergency removal of a tree uprooting from root loss (Tree #4).

Tree #1 a large and healthy Coast Live oak did not have any visible evidence of excavation within the immediate root zone. A large pile 6-foot tall pile of soil is present east of the tree within the dripline. Dead branches up to 2-inches were noted within the canopy and power lines are present above the tree.

Tree #2 a large Monterey Cypress near 100-feet tall sustained substantial root zone damage on the northern side of the tree. The trunk has a lean and the canopy is heavy to the west. The south side of the tree appears to have had grade changes that may have resulted in root loss in the past depending on when the house at Guadalupe 3NE of 3rd was built. The foliage had minimal dead tissue and no pests or disease were visible.

Tree #3 a relatively small Coast Live Oak is present with the eastern dripline of Tree #4. Excavation was present 6-feet to the north of the trunk, but minimal impact from construction is suspected. The tree was noted for having a sparse canopy.

Tree #4 was reported to have been cut down because cut roots caused the tree to begin to fail to the east on an adjacent house. As much as 50% of the trees root zone had been removed during excavation and roots up to 4-inches could be seen severed in the bank wall.

Tree #5 is a multi-stem oak consisting of 4-large leaders. Any roots that may have been present on the southern side of the tree have been removed. A large broken root that had been broke by force was visible on below Leader "C". Leader "B" Could be seen resting on the roof of the cottage/shed in the back yard of Guadalupe 5NE of 3rd. Leader C was with in 2-feet of the roof as well. The grouping of trees displayed health canopies with minimal sings of pests or diseases.



CONSTRUCTION IMPACT

A total of 8 trees were noted on the property or near the property line. Excavation is believed to have had minor to severe impact to all trees on the site.

Negligible- little to no impacts observed.

Minor - Impact limited to compacted and or contaminated soil or minor canopy damage such as exhaust burning from heavy machinery. Trees with *minor* may require corrective maintenance such as trimming, soil treatments, watering, and mulching.

Significant- Root damage suspected to have impacted large structural roots. Decline in health and/or stability likely with in a given amount of time. Trees with *significant* root damage may require extensive corrective measures such as canopy reduction for retention and continued monitoring for signs of decline or structural instability.

Severe- stability of tree jeopardized with extensive roots loss. Damage to **Critical Root Zone (CRZ)**, may result in main stem/trunk decay. Failure and/or tree mortality likely as result of damage. Trees with *severe* root damage may require removal to reduce risk to life and property.

Tree #	Species	DSH	Construction Impact	Impact Concern	Recommendation
1	Coast Live Oak	30" ²	Minor	Health	Monitor
2	Monterey Cypress	35"	Significant	Stability	Remove
3	Coast Live Oak	10"	Minor	Health	Monitor
4	Coast Live Oak	22" ³	Severe	REMOVED	REMOVED
5A	Coast Live Oak	13"	Significant	Stability	Support system
5B	Coast Live Oak	17"	Minor	Stability	Support System
5C	Coast Live Oak	18"	Significant	Stability	Support System
5D	Coast Live Oak	27"	Minor	Stability	Support System

² Estimated by sight due to tree protection boards.

³ Measurement provided by City Forester.



Risk assessment

The International Society of Arboriculture *Tree Risk Assessment* program is a system in which to derive an understanding of the risks associated with a given tree and/or tree stand. Factors including *Likelihood of Failure*, *Likelihood of Impacting Target* and *Consequences of Failure* are determined from information collected during the field assessment. These factors are then run through two matrices to produce a risk rating. (Dunster, 2013)

Limitations of Tree Risk Assessment

According to the *Tree Risk Assessment Manual*, published by the International Society of Arboriculture (ISA), it is impossible to maintain trees free of risk: “There is no way to guarantee that a tree will not fail. Tree benefits increase as the age and size of trees increase; however, some level of risk must be accepted to experience the benefits provided. The goal in assessing and managing trees is to strike a balance between the risk that a tree poses and the benefits that individuals and communities derive from trees.”

“A considerable level of uncertainty is typically associated with tree risk assessment due to our limited ability to predict natural processes (rate of progression of decay, response growth, etc.), weather events, traffic and occupancy rates, and potential consequences of failure.”

“Conditions affecting trees change constantly; none of us will ever be able to predict every tree failure. Conducting a tree risk assessment neither ensures nor requires perfection. Risk assessment should, however, ensure that all reasonable efforts have been made to identify the *likelihood of failure*, the *likelihood of impact*, and the *consequences of failure* present at the time of assessment.”

“Abnormally extreme storms, such as tornadoes, hurricanes, earthquakes and heavy freezing rain, are not predictable and, in most cases, are not considered for categorizing *likelihood of failure*.”



Risk Assessment Table - Time Frame 5-Years

Risk assessments could not account for people in the area as no formal occupancy rate survey could be completed and the property is still under construction. Consequences mostly reflect damage to property, but it is important to understand that any tree part impacting persons in the area would likely result in severe consequences such as permanent injury or death.

Tree	Failure Concern	Target	Likelihood of Failure	Likelihood Impacting Target(s)_	Consequences	Risk Rating
1	Branch/Leader Failure	Street	Improbable	Low	Minor	Low
2	Root Failure	Guadalupe 3NE/4NE of 3 rd property	Possible	High	Severe	Moderate
2	Branch/Leader	Houses/Patio	Probable	Medium	Significant	Moderate
3	Branch	Guadalupe 3NE of 3 rd Back Patio	Improbable	Low	Minor	Low
4	N/A Tree Removed	N/A	N/A	N/A	N/A	N/A
5A	Roots	Neighboring property to east back of house	Probable	High	Minor	Moderate
5B	Roots	Guadalupe 5NE of 3 rd Rear Cottage/Shed	Possible	High	Minor	Low
5C	Roots	Guadalupe 5NE of 3 rd Rear Cottage/Shed	Possible	High	Significant	Moderate
5D	Roots	Guadalupe 5NE of 3 rd Patio/Back yard	Possible	High	Minor	Low



Tree Appraisal

The appraisal was determined using guidelines set forth by the Council of Tree & Landscape Appraisers in the *Guide for Plant Appraisal, 10th Edition*. In addition to the Western Chapter of the International Society of Arboriculture book titled *Species Assignment and Classification and Group Assignment* was used to determine the most commonly available replacement tree size, replacement price and average installation costs. The **Reproduction Method by Trunk Formula Technique**, where the value of the tree is determined by extrapolating the purchase cost of a nursery-grown tree up to the size of the size of the subject tree being valued. Appendix-C of this report provides an example of the process used to produce the estimate of value.

Criteria for Appraisal

The seven trees/stems most impacted by construction were chosen for appraisal. These values may be used by the city for code enforcement purposes. Appraisal of the remaining trees can be provided upon request.

Tree #	Species	DSH	Construction Impact	Appraised Value
1	Coast Live Oak	30"	Minor	\$11,000.00
2	Monterey Cypress	35"	Significant	\$10,300.00
4	Coast Live Oak	22"	Severe	\$6,200.00
5A	Coast Live Oak	13"	Significant	\$2,300.00
5B	Coast Live Oak	17"	Minor	\$2,900.00
5C	Coast Live Oak	18"	Significant	\$3,700.00
5D	Coast Live Oak	27"	Minor	\$8,900.00

Total Appraised Value of Affected trees \$45,300.00



Discussion

Impact to trees on the site could clearly have been avoided through careful hand excavation. However, it appears that the work was completed using an excavator with disregard for root systems. The large 6-inch root that was visibly snapped by the multi-stem Oak #5, not only is a concern for root loss but also damages to the trunk from leverage forces when the root was snapped. Roots pulled from the ground can cause fractures in other **buttress**/support roots and in the main stem of a leader, these cracks can serve as an entry point for pathogens and develop into cavities from decay over time. Unfortunately, damage from construction can take years to be reflected in the canopy and often can result in sudden tree death or catastrophic failure of the tree itself.

Tree #'s 2, 4 and the multi-stem oak #5 sustained the most root damage, and as seen with tree #4 the damage resulted in tree failure. Tree #2 (Monterey Cypress) has sustained a significant amount of root loss from recent construction and may have been impacted in the past from the property to the south, as there is a noticeable grade change. If the grade change was completed recently (inside of 10-20 years) it may have impacted the trees stability. However, with the information we have now, and if no other grade changes have been made in ten or more years, I believe that the tree could be retained. A 30% crown reduction would reduce weight and stress on the root system, thus reducing likelihood of failure. This significant of a crown reduction would have significant impacts to the tree's health, and tree health or stability is never 100% guaranteed, additionally the pruning would likely reduce the esthetics of the tree due to extensive loss of canopy.

Tree #5 is in most respects 4 different trees; however, the leaders have developed in a way where they act as one. Loss of one leader would have immediate impacts to the other leaders. The root systems have undoubtedly become intertwined and may have grafted in some areas. Disturbances to one tree could have health impacts or even structural impacts with the loss of anchoring from another leader's weight, as well as increased wind loading. The location of these leaders raises other concerns as they grow over and even touch the neighboring house to the north (no property boundaries were marked, and the tree stems appear to be on or near the property line). Although this tree has been impacted by construction and has several structural issues and site conflicts, it has an irreplaceable unique character. I believe the tree could be retained if a supplemental support system were installed. The system would require strategically placed support **props** and **cabling**.

Any mitigation efforts to retain trees would have to be completed with all neighboring properties in the **target zone** of any tree understanding the associated risks of retaining the trees as well as committing to ongoing maintenance and monitoring of the trees to reduce likelihood of failure.



Recommendation

1. Remove Tree #2
2. Consult with neighboring properties regarding the retention of the multi-stem Oak #5
 - a. Mitigations must be in place before winter winds and rains begin, or within 2 months of this report.
 - b. Establish support system plan in the field with a certified arborist and affected parties, to determine acceptable property line encroachment for support structures.
 - c. Removal of the entire oak is advised if no support system is installed.
3. Any further excavation or construction within the dripline of any retained tree should be supervised or approved by a certified arborist.
4. Post construction inspection of retained trees recommended.
5. Soil injections for retained trees with low nitrogen fertilizer/fungicidal blend to aid reduce stress to trees from construction.
6. Trimming of any tree retained, focusing on end weight reduction of overextended branches or lopsided canopies, removal of dead or broken branches.
 - a. No live branch over 3-inches shall be removed or more than 20% of canopy without approval of a certified arborist and or city forester.

Thank you for the opportunity to assist you in your tree assessment needs. If there are any questions or concerns feel free to contact me directly at (408) 835-0438, greeve@wcainc.com

Respectfully,

Glenn O. Whitlock-Reeve
Board Certified Master Arborist
WE-10177BTM
ISA Qualified Tree Risk Assessor
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Glossary

Air-spade- specialist excavation tool that uses compressed air to remove and break up soil with minimal damage to roots and underground utilities. It can be used for a variety of reasons including the alleviation of compaction, soil improvement, root inspection and root location.

Buttress Roots- roots at the trunk base that help support the tree and equalize mechanical stress.

Critical Root Zone (CRZ)- An area where roots are present around a tree that are crucial to health and stability of the tree. Tree roots expand far beyond the canopy of the tree; most roots grow within the top 6-8" of the soil. Roots grow where conditions are most favorable, seeking oxygen water and nutrients. There is no industry standard to for measuring the *Critical Root Zone*, but for the purpose of this report it shall be defined as the **DSH** multiplied by 8-inches. All excavation should be completed by hand and with an **Air-spade** in the defined **CRZ**. No root larger than 2-inches in diameter shall be cut without approval from certified arborist within the **CRZ**.

Cabling- installing of a cable within a tree between limbs or leaders to limit movement and provide supplemental support.

Depreciation- a loss in value from any cause; typically caused by either physical, economic, or external factors.

Fibrous roots- small hair like roots that absorb nutrients and water.

Props – ridged structures installed beneath a low branch or trunk to limit movement and provide supplemental support.

Reproduction cost- the cost to replace an improvement with an exact replica. Referred to in previous editions of the *Guide* as *replacement cost*.

Target Zone- the area where a tree or branch is likely to land if it were to fail.

Trunk formula technique (TFT): a technique for developing a cost basis that involves extrapolating the purchase cost of a nursery -grown tree up to the size of the subject tree being valued.

Value: the monetary worth of a property, good or service to buyers and sellers at a given point in time. Expectation or present worth of future benefits. Economic value is created by scarcity restricting supply and utility enhancing demand. Not to be confused with cost or price.

Value estimate: an assignment result in which the plant appraiser estimates the economic value of a plant or landscape item based on its market supply and demand.



Bibliography

Richard F. Gooding, J. R. (2019). *Guide for Plant Appraisal, 10th Edition*. Atlanta : International Society of Arboriculture .

Tree Care Industry Association, Inc. (2017). *Tree, Shrub, and Other Woody Plant Management- Standard Practices (Pruning)*. New Hapshire : Tree Care Industry Association, Inc.

Western Chapter of International Society of Arboriculture. (2004). *Species Classification And Group Assignment* . Western Chapter of International Society of Arboriculture.

Appendix A- Map (Approximate Tree locations)



Tree locations are approximate, and no property boundaries were provided.

Appendix B- Observation Photos

Tree-1



Figure 1: Tree #1 looking northeast, note piled soils on eastern root zone, indicated by red arrow.



Figure 2: Dead branches noted by red arrow in upper canopy.

Tree-2



Figure 3: Looking south at tree #2 Note excavation with in 6-feet of base of tree to a depth of nearly 3-feet. Also, trunk can be seen growing at an angle to the west and heavy canopy.



Figure 4: Looking east, note how house on right (Guadalupe 3NE of 3rd is built below the grade of base of tree. Southern canopy seen heavily cut back.

Tree-3 and Privets



Figure 5: Tree #3 seen looking south, note limited foliage.



Figure 6: Small Privet trees seen looking east.

Tree-4 (Stump)



Figure 7: Stump of tree #4 seen with measuring tape.



Figure 8: Excavated area shown on west side of stump, cut roots can be seen with evidence of heaving/unearthing from reported tree failure circled in red.

Multi-Stem Oak – Stems

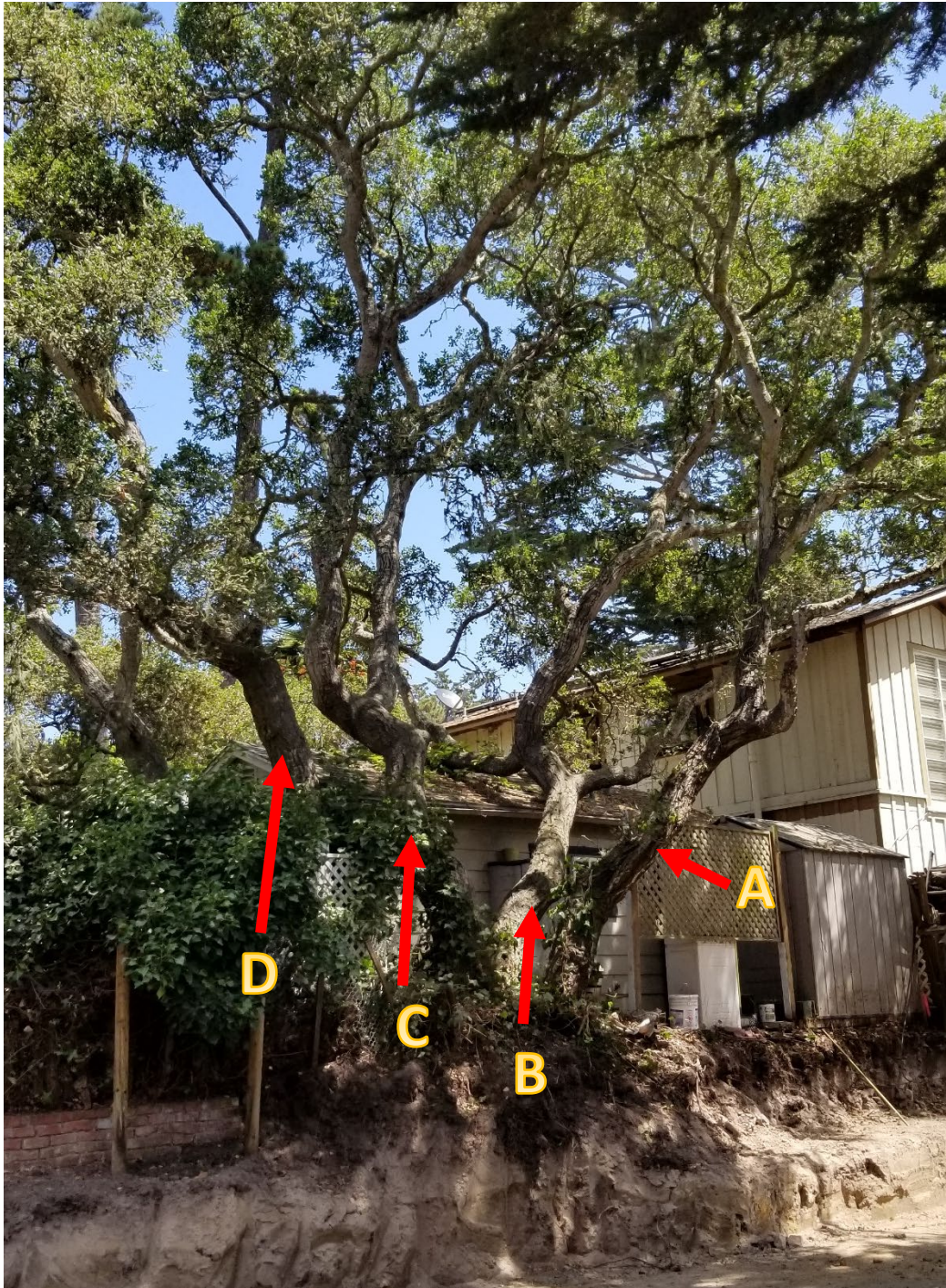


Figure 9: Multi-Stem Oak #5 seen looking northeast. Note Stem “B” Resting on roof and “C” within 2-feet.



Appendix C- Risk Rating Matrices

In deriving an estimate of risk, you must consider the targets, the likelihood of a tree failure impacting a target, and the consequences of failure. These factors are used in conjunction with the tables below to derive an estimated risk rating.

Likelihood of Failure	Likelihood of Impacting Target			
	Very Low	Low	Medium	High
Imminent	Unlikely	Somewhat Likely	Likely	Very Likely
Probable	Unlikely	Unlikely	Somewhat Likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat Likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Likelihood of Failure and Impact	Consequences			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Extreme –The tree risk assessor should recommend that mitigation measures be taken as soon as possible. In some cases, this may mean immediate restriction of access to the target zone area to avoid injury to people.

High – The decision for mitigation and timing of treatment depends on the risk tolerance of the tree owner or risk manager. In populations of trees, the priority of high-risk trees is second only to extreme-risk trees.

Moderate- The decision for mitigation and timing of treatment depends on the risk tolerance of the tree owner or risk manager. In populations of trees, moderate-risk trees represent a lower priority than high – or extreme risk trees.

Low- Mitigation treatments may reduce future risk, but the categorized risk rating is already at the lowest level.



Appendix D- Appraisal Calculations (Shown for Tree #2)

Depreciation Factors

Health (*Fair 80% Rating*)⁴

Vigor is normal for the species. No significant damage due to diseases or pests. Any twig dieback, defoliation or discoloration is minor.

Structure (*Good 65% Rating*)

Well developed structure defects are minor and can be corrected.

Form (*Good 75% Rating*)

Minor asymmetries/deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.

Functional Limitations (FL): 60% Rating

Large maturing tree near property line (Minor Impact).

External Limitations (EL): 75% Rating

Limited growing space adjacent houses, (Minor Impact)

The bellow table shows factor values applied to all trees appraised in this assessment.

<u>Tree #</u>	<u>Health</u>	<u>Structure</u>	<u>Form</u>	<u>FL</u>	<u>EL</u>	<u>DSH</u>	<u>Replacement</u>	<u>After care</u>
1	80%	80%	80%	70%	75%	30"	\$250	\$600
2	80%	65%	75%	60%	75%	35"	\$250	\$600
4	75%	65%	75%	75%	75%	22"	\$250	\$600
5A	75%	60%	75%	75%	75%	13"	\$250	\$600
5B	75%	60%	75%	60%	75%	17"	\$250	\$600
5C	75%	75%	75%	60%	75%	18"	\$250	\$600
5D	75%	80%	75%	75%	75%	27"	\$250	\$600

⁴ Ratings are used for tree appraisal, and our calculated from table 4.1 on page 44 of the *Guide for Plant Appraisal*, 10th edition.



Appraisal Calculations Tree #2 (continued)

Subject Tree (Tree #2)

Species: Monterey Cypress

- | | |
|---|---------------------------|
| 1. Trunk Diameter: | 35-in |
| 2. Cross- Sectional Area (line 1) ² x 0.7854: | 962-in² |
| 3. Condition Rating: | 65% |
| (Lowest Individual rating to establish overall condition rating) | |
| a. Health: 80% | |
| b. Structure: 65% | |
| c. Form: 75% | |
| 4. Functional Limitations: near property line | 60% |
| 5. External Limitations: poor soils in area/patterns of decline. | 75% |

Replacement Tree

Species: Coast Live Oak (*Quercus agrifolia*)

- | | |
|--|----------------------------|
| 6. Trunk Diameter: | 2.46-in |
| 7. Cross-Sectional area (line 6) ² x 0.7854: | 5.16-in² |
| 8. Replacement Tree Cost (24-in Box): | \$172.73 |

(Lines 6-8 Source: *Species Classification and Group Assignment 9th Edition*)

Calculations

- | | |
|---|--------------------|
| 9. Unit tree cost (Line 8 / Line 7): | \$33.47 |
| 10. Basic reproduction cost (line 2 x line 9): | \$32,198.14 |
| 11. Depreciated reproduction cost: | \$9,417.95 |
| (line 10 x line 3 x line 4 x line 5) | |

Additional Costs

- | | |
|---|-----------------|
| Clean up: (Property owner responsibility) | N/A |
| Replacement Tree Installation: (City standard) | \$250.00 |
| Aftercare: (weekly watering for 1 year during summer months) | \$600.00 |

(Additional costs are low estimates sourced from previous experience and similar projects)

- | | |
|---|--------------------|
| 12. Total additional costs: | \$850.00 |
| 13. Total reproduction cost (line 11 + line 12): | \$10,267.95 |
| 14. Rounded: | \$10,300.00 |



ASSUMPTIONS AND LIMITING CONDITIONS

1. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the Consultant can neither guarantee nor be responsible for the accuracy of information provided by others. Standard of Care has been met with regards to this project within reasonable and normal conditions.
2. The Consultant will not be required to give testimony or to attend court by reason of this report unless subsequent contractual agreements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
3. Loss or alteration of any part of this report invalidates the entire report.
4. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior written consent of the Consultant.
5. This report and any values expressed herein represent the opinion of the Consultant, and the Consultant's fee is in no way contingent upon the reporting of a stipulated result, a specified value, the occurrence of a subsequent event, nor upon any finding to be reported.
6. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination of accessible items without dissection, excavation, or coring, unless otherwise stated. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the tree(s) or property in question may not arise in the future.
7. Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. It is highly recommended that you follow the arborist recommendations; however, you may choose to accept or disregard the recommendations and/or seek additional advice.
8. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specific period of time.
9. Any recommendation and/or performed treatments (including, but not limited to, pruning or removal) of trees may involve considerations beyond the scope of the arborist's services, such as property boundaries, property ownership, site lines, disputes between neighbors, and any other related issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist can then be expected to consider and reasonably rely on the completeness and accuracy of the information provided.
10. The author has no personal interest or bias with respect to the subject matter of this report or the parties involved. He/she has inspected the subject tree(s) and to the best of their knowledge and belief, all statements and information presented in the report are true and correct.
11. Unless otherwise stated, trees were examined using the risk assessment criteria detailed by the International Society of Arboriculture's publications *Best Management Practices – Tree Risk Assessment* and the *Tree Risk Assessment Manual*.



Appendix E - Certification of Performance

I, Glenn O. Whitlock-Reeve, Certify that:

1. I have personally inspected the tree(s) and property referred to in this report and have stated my findings accurately.
2. I have no current or prospective interest in the tree or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
3. The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and facts.
4. My analysis, opinions and conclusions were developed, and this report has been prepared according to commonly accepted arboricultural practices and standards.
5. No one provided significant professional assistance to me, except as indicated within the report.
6. My compensation is not contingent upon the reporting of 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 subsequent events.

I further certify that I am a member in good standing of the American Society of Consulting Arborists and a Board-Certified Master Arborist with the International Society of Arboriculture (ISA). I have been a Certified Arborist since 2013 and in the practice of arboriculture for over 10 years.

Signed:

Glenn O. Whitlock-Reeve
Board Certified Master Arborist
WE-10177BTM
ISA Qualified Tree Risk Assessor
West Coast Arborists, Inc.

Date: 08/13/20