

Arborist Report
Evaluation of a Blue Gum Eucalyptus at:
935-B Balboa Avenue, Capitola, CA

12/17/2019

Prepared for:
Strock Real Estate
245 Center Avenue,
Aptos, CA. 95003

Prepared by:
Kurt Fouts



ISA Certified Arborist WE-0681A
ISA Tree Risk Assessment Qualification (TRAQ)

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SUMMARY

A mature blue gum eucalyptus, growing in the rear yard of a residence was evaluated. The tree meets “protected” criteria according to the City of Capitola Municipal Code. The tree is in good health with a well-developed canopy but has two structural defects. The defects can lead to failure in the blue gum species but are not considered a significant risk at this time. The tree can be retained, with the reasons for this recommendation discussed in more detail below.

ASSIGNMENT, LIMITS, PURPOSE & USE

- Perform a Level 2: Basic Assessment employing the methods and terminology described in *Best Management Practices: Tree Risk Assessment* (E. T. Smiley, N. Matheny, and S. Lilly., 2017). Assessment to entail a visual inspection of the tree and site conditions from the ground only.
- The assessment is limited to observations made during my site visit on December 11, 2019
- Any tree, whether it has visible weakness or not, will fail if the forces applied exceed the strength of the tree or its parts. This assessment does not imply a guarantee period and is not to be construed as an absolute prediction.
- This assessment does not include a “risk assessment” or the likelihood of a tree or its parts to strike a target along with the determination of the consequences to arrive at a “risk rating”
- No laboratory analysis was performed in completion of this assignment.
- The purpose of this report is to inform the property owner about the likelihood of the tree or its parts to fail. The report is to be used by the property agents and the City of Capitola, to guide decision making regarding management of the tree.

Background

Ms. Sarah Thorp of Strock Real Estate requested my services, to assess the condition of a “protected” blue gum eucalyptus tree located on the property at 935-B Balboa Avenue, and any risks associated with this tree. Further, to provide a report with my findings and recommendations to meet City of Capitola tree ordinance regulations.

OBSERVATIONS

The blue gum eucalyptus (*Eucalyptus globulus*) tree is in a rear yard of 935-B Balboa. The tree trunk is sited on the fence line about 12 feet from the home. The tree has a 60-inch diameter trunk at 4 feet above grade and is 110 feet tall with a 35-foot diameter spread (Image #1)



Image #1 – blue gum eucalyptus (circled), in back yard of 935-B, as viewed from Balboa Avenue.

The mature blue gum has good trunk taper, appears well rooted and has large rooting areas to the north, east and southeast (Image #2).



Image #2 – Well tapered trunk. Location is on fence line at top of slope with good rooting area below.

The tree is at the top of a slope that drops to the east.

Wood decay fungi were found growing on the north side of the lower trunk (Image #3)



Image #3 – Wood decay fungi,

The fungus species was not identified. A sounding taken with a rubber mallet around the circumference of the tree did not produce any hollow resonance that would indicate decay.

At eleven feet above grade, the trunk separates into two co-dominant trunks. (Image #4). Included bark* can be seen between the two trunks.



Image #4 – Trunk union and separation into two trunks (red arrow), with included bark (green arrow).

The angle of attachment is steep (narrow). The union area was partially obscured with bark debris and the quality of the attachment point could not be fully assessed.

***Included Bark:** Bark remaining between crotches or steep angled trunks, preventing the development of auxiliary wood. The inherent weakness of such attachments increases over time through the pressure of opposing growth and the increasing weight of wood and foliage.

One of the two trunks separate into a second co-dominant trunk at 40 feet above grade (Image #5).



Image #5 – Trunk union (arrow).

The angle of attachment is steep.



Image #6 – Close up of second union (arrow), shown in image #5. Two pruning cuts can be seen.

The union is obscured by bark debris and the quality of the attachment point cannot be fully assessed.

Two limbs were recently pruned, as indicated by the light-colored wood cut, adjacent to the union (Image #6).

The limb architecture in the main canopy is balanced, limbs are evenly spaced, and the main scaffold limbs are well attached. (Image #7).



Image #7 – Well developed canopy of blue gum (circled).

The tree has developed a rounded canopy often seen in mature blue gum specimens.

Canopy density and vigor (new growth), is normal for the species.

On a scale of good, fair, poor, the structure of this tree is rated fair with the two sets of co-dominant trunks being the only structural defects.

On a scale of good, fair, poor, the health of the tree is rated good.

A summary assessment of tree data and condition is outlined in the attached Tree Assessment Chart, Appendix A.

DISCUSSION

The most notable structural characteristic of this blue gum are the two sets of co-dominant trunks. The steep angle of attachment of the two trunks with included bark, contribute to a poor structural connection.

This defect is common in blue gum and does not by itself, indicate the tree is likely to fail. However, co-dominant trunks are a failure point on trees and the blue gum species show a pattern of failure at this point.

The trunk base is well flared, and the two trunks have good taper making for a well anchored and stable tree.

The tree structure in the main canopy is balanced, limbs are evenly spaced, and the main scaffold limbs are well attached. The limb length is good (no overextended limbs), with no significant mechanical stress due to limb length.

The large rooting area allows the tree to meet its water requirement which is responsible for the well-developed canopy. The tree appears vigorous and in good health.

The fungi found in the lower trunk area are not causing any significant wood decay, as indicated by a mallet sounding, but should be monitored periodically, to determine if decay develops.

The tree is located less than six feet from a concrete patio that shows some cracking. It is possible that this cracking is caused by root diameter expansion of surface roots from the blue gum.

Since the trunk straddles the fence line, if the fence line is also the property line, this tree is a 'boundary' tree and is co-owned by both property owners.

Risk Considerations

The most likely tree part to fail is one of the secondary branches in the main canopy. If one of these limbs was to fail, depending on its location on the tree, it could strike the home(s) at 935 Balboa.

Failure at the attachment point of one of the co-dominant trunks is also a possibility. Targets in the event of a trunk failure include at least 3 units to the south including units 935 A/B and 927 A/B. At least 3 units to the north, including units 1001 A/B and 1003 A/B could be impacted by failure of one of the co-dominant trunks.

Based on the trees structural defects, the load on those defects, the size of some tree parts and the likelihood of striking a home if failure were to occur, I would consider the tree as a *medium* risk, on a scale of low, medium, or high.

Most tree failures occur during wind events. Wind events in our region typically occur during winter storms with winds coming from the south or southeast. Since there is a large grove of eucalyptus trees to the south and east of this tree, its canopy is partially buffered from winter storm winds, with damaging wind effects being at least partially reduced.

Mitigation Considerations

A cable installed two thirds of the distance up from the base of the tree, between the two co-dominant trunks would reduce movement of the trunks during wind events. If installed, cable systems must be maintained with the tension periodically adjusted. No pruning is recommended for this tree.

CONCLUSION

The blue gum inspected is in good health, with a well-developed branch structure and canopy formation. The most likely tree part to fail is a secondary branch. The tree has two sets of co-dominant trunks, which are structural defects that can cause trunk failure in the blue gum species. Cabling between the two co-dominant trunks is a mitigation method that can reduce the likelihood of failure.

Trees that receive mitigation treatments will retain some residual risk. Removal is the only way to mitigate all risk. Wherever trees are present, people, property and activities are potentially at risk of injury, damage or disruption.

RECOMMENDATIONS

1. Have the tree inspected by a Certified Arborist every two years.

Respectfully submitted,

Kurt Fouts

Kurt Fouts ISA Certified Arborist WE0681A



935 Balboa Avenue, Capitola
Tree Assessment Chart - Appendix A

Suitability for Preservation Ratings:

Good: Trees in good health and structural condition with potential for longevity on the site

Fair: Trees in fair health and/or with structural defects that may be reduced with treatment procedures

Poor: Trees in poor health and/or with poor structure that cannot be effectively abated with treatment

Retention or Removal Code:

RT: Retain Tree


RI: Remove Due to Construction Impacts

IM: Impacts Can Be Mitigated With Pre-Construction Treatments

RC: Removal Due to Condition

Protected Tree City of Capitola

Any tree 6 inches or greater in diameter measured at 4 feet above grade.

Tree #	Species	Trunk Diameter @ 4' above grade	# of Trunks	Crown Height & Diameter Spread	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (in feet)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
T1	blue gum eucalyptus (<i>Eucalyptus globulus</i>)	60"	2	110'X35'	Good	Fair	Good	N/A	N/A	RT	Has two structural defects: co-dominant (two) trunks, with included bark, at 11'+A1 above grade and a second set of co-dominant trunks at 40' above grade.
 <p>826 Monterey Avenue Capitola, CA 95010 831-359-3607 kurtfouts1@outlook.com</p>							Page 1 of 1		12/17/2019		

APPENDIX B – CRITERIA FOR TREE ASSESSMENT CHART

Following is an explanation of the data used in the tree evaluations. The data is incorporated in the *Tree Assessment Chart, Appendix A*.

Trunk Diameter and Number of Trunks:

Trunk diameter as measured at 4.5 feet above grade. The number of trunks refers to a single or multiple trunked tree. Multiple trunks are measured at 4.5 feet above grade.

Health Ratings:

Good: A healthy, vigorous tree, reasonably free of signs and symptoms of disease

Fair: Moderate vigor, moderate twig and small branch dieback, crown may be thinning and leaf color may be poor

Poor: Tree in severe decline, dieback of scaffold branches and/or trunk, most of foliage from epicormics

Structure Ratings:

Good: No significant structural defects. Growth habit and form typical of the species

Fair: Moderate structural defects that might be mitigated with regular care

Poor: Extensive structural defects that cannot be abated.

Suitability for Preservation Ratings:

Rating factors:

Tree Health: Healthy vigorous trees are more tolerant of construction impacts such as root loss, grading and soil compaction, then are less vigorous specimens.

Structural integrity: Preserved trees should be structurally sound and absent of defects or have defects that can be effectively reduced, especially near structures or high use areas.

Tree Age: Over mature trees have a reduced ability to tolerate construction impacts, generate new tissue and adjust to an altered environment. Young to maturing specimens are better able to respond to change.

Species response: There is a wide variation in the tolerance of individual tree species to construction impacts.

Rating Scale:

Good: Trees in good health and structural condition with potential for longevity on the site

Fair: Trees in fair health and/or with structural defects that may be reduced with treatment procedures.

Poor: Trees in poor health and/or with poor structure that cannot be effectively abated with treatment. Trees can be expected to decline or fail regardless of construction impacts or management . The species or individual may possess characteristics that are incompatible or undesirable in landscape settings or unsuited for the intended use of the site.

Construction Impacts:

Rating Scale:

High: Development elements proposed that are located within the Tree Protection Zone that would severely impact the health and /or stability of the tree. The tree impacts cannot be mitigated without design changes. The tree may be located within the building footprint.

Moderate: Development elements proposed that are located within the Tree Protection Zone that will impact the health and/or stability of the tree and can be mitigated with tree protection treatments.

Low: Development elements proposed that are located within or near the Tree Protection Zone that will have a minor impact on the health of the tree and can be mitigated with tree protection treatments.

None: Development elements will have no impact on the health and stability of the Tree.

Tree Protection Zone (TPZ):

Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, particularly during construction or development.

Glossary of Terms

Basal rot: decay of the lower trunk, trunk flare, or buttress roots.

Canker: Localized diseased area on stems, roots and branches. Often sunken and discolored.

Critical Root Zone (CRZ): Area of soil around a tree where a minimum number of roots considered critical to the structural stability or health of the tree are located. CRZ determination is sometimes based on the drip line or a multiple of the DBH, but because root growth can be asymmetric due to site conditions, on-site investigation may be required.

Codominant branches/stems: Forked branches (or trunks), nearly the same size in diameter, arising from a common junction and lacking a normal branch union, may have included bark.

Crown: Upper part of a tree, measured from the lowest branch, including all branches and foliage.

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): Measurement of trunk diameter at 4.5 feet above grade.

Frass: Fecal material and/or wood shavings produced by insects.

Included Bark Attachments (crotches): Branch/limb or limb /trunk, or codominant trunks originating at acute angles from each other. Bark remains between such crotches, preventing the development of axillary wood. The inherent weakness of such attachments increases with time, through the pressure of opposing growth and increasing weight of wood and foliage, often resulting in failure.

Live Crown Ratio (LCR): Ratio of the height of the crown containing live foliage to overall height of the tree.

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

Suppressed: Trees that have been overtopped and occupy an understory position within a group or grove of trees. Suppressed trees often have poor structure.

Tree Protection Zones (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.

Trunk flare: Transition zone from trunk to roots where the trunk expands into the buttress or structural roots.

This Glossary of Terms was adapted from the *Glossary of Arboricultural Terms* (ISA, 2015)



CITY OF CAPITOLA TREE PERMIT INFORMATION

CITY OF CAPITOLA COMMUNITY DEVELOPMENT DEPARTMENT
420 CAPITOLA AVENUE, CAPITOLA, CA 95010
831-475-7300 WWW.CITYOFCAPITOLA.ORG

Tree Permit Overview

A Tree Permit is required to remove most trees on private property. The purpose of the Tree Permit process is to protect and enhance the City's existing tree cover for the benefit of aesthetics, community character, air quality, and habitat for birds and wildlife. A Tree Permit is a ministerial Permit which is typically issued by the Community Development Director.

Tree Permit Applicability

Capitola [Municipal Code](#) section 12.12 establishes the criteria for when a Tree Permit is required. A Tree Permit is required to remove any tree which has a diameter of 6-inches or more at 48-inches above grade. The only exceptions are fruit-bearing trees, which do not require a permit to remove.

Tree Trimming and Pruning

A property owner may trim and prune trees without a permit if it does not remove more than 25% of the tree's height or its volume of foliage and branches.

Tree Permit Findings

In order to issue a permit to remove a tree, the following findings must be made:

1. The tree removal is in the public interest based on one of the following:
 - a. Because of the health or condition of the tree, with respect to disease infestation, or danger of falling;
 - b. Safety considerations; or
2. A tree has caused, or has the potential to cause, unreasonable property damage and/or interference with existing utility services.
3. All possible and feasible alternatives to tree removal have been evaluated, including, but not limited to undergrounding of utilities,

selective root cutting, trimming and relocation.

4. Replacement trees in a ratio of 2:1 to ensure a canopy coverage of at least fifteen percent will result, and/or as a last resort, in-lieu fees have been paid. Replacement trees and/or in-lieu fees are not required if post-removal tree canopy coverage on the site or parcel will be 30% or more.

Application Requirements

Applicants must submit a [Tree Permit Application](#) and submit necessary fees as established in the City's adopted [Fee Schedule](#). An arborist report may also be needed to evaluate the condition of a tree. A security deposit is also required to ensure replacement trees (as applicable) are installed in a timely and proper manner.

Time and Cost

Tree Permits typically require 5-30 days to process. The cost for Tree Permits are as follows:

- Tree Removal (Staff Review) - \$123 fee
- Tree Removal (PC Review) - \$1,026 fee
- Tree Removal (3 or more) - \$263 fee
- Install Deposit - \$500 refundable fee
- Arborist Report – actual cost + 21%

Tree Permit Process

Once a complete Tree Permit application has been submitted, City staff will evaluate the request, inspect the tree to be removed, and post a notice on the property for a minimum of period of 10 working days prior to tree removal. If findings can be made to allow removal, the property owner will be required to submit a fully refundable deposit to ensure replacement trees will be planted. A permit will then be issued over-the-counter. Tree permits do not require a public hearing, unless the tree is located in an environmentally sensitive area and within the coastal zone.

ASSUMPTIONS AND LIMITING CONDITIONS

1. Any legal description provided by the appraiser/consultant is assumed to be correct. No responsibility is assumed for matters legal in character nor is any opinion rendered as the quality of any title.
2. The appraiser/consultant can neither guarantee nor be responsible for accuracy of information provided by others.
3. The appraiser/consultant shall not be required to give testimony or to attend court by reason of this appraisal unless subsequent written arrangements are made, including payment of an additional fee for services.
4. Loss or removal of any part of this report invalidates the entire appraisal/evaluation.
5. 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(s) to whom it is addressed without written consent of this appraiser/consultant.
6. This report and the values expressed herein represent the opinion of the appraiser/consultant, and the appraiser/consultant's fee is in no way contingent upon the reporting of a specified value nor upon any finding to be reported.
7. Sketches. Diagrams. Graphs. Photos. Etc., in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys.
8. This report has been made in conformity with acceptable appraisal/evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
9. When applying any pesticide, fungicide, or herbicide, always follow label instructions.
10. No tree described in this report was climbed, unless otherwise stated. We cannot take responsibility for any defects which could only have been discovered by climbing. A full root collar inspection, consisting of excavating around the tree to uncover the root collar and major buttress roots, was not performed, unless otherwise stated. We cannot take responsibility for any root defects which could only have been discovered by such an inspection.

CONSULTING ARBORIST DISCLOSURE STATEMENT

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 risk of living near trees, Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

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 specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

