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ARBORIST REPORT

550 Shell Blvd, Foster City, CA 94404 August 2023





Arborist Report for Marriott 550 Shell Blvd. Foster City, California 94404

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Summary

In June 2023, Davey Resource Group (DRG) was contracted by Blake Erlandson of The Blueline Group to conduct a tree inventory and develop an arborist report and recommendation of the trees in the area of impact on the property at 550 Shell Blvd in Foster City, CA. The request was made to assess the current condition of the trees and establish recommendations based on the findings.

On August 9, 2023, an International Society of Arboriculture (ISA) Certified Arborist (Sabrina Huey, #WE-14060A) from Davey Resource Group conducted the evaluation of ten (10) trees on the property that may be impacted by development. The trees were assessed by their location, size, current condition, health, structure, and form. The current site plan was used to estimate the construction footprint in relation to the critical root zones (CRZ) of the trees in order to help guide construction and to reduce potential impacts on the trees. Current plans include new landscape on the property. Tree information is summarized as follows:

- Ten (10) trees were assessed, consisting of four (4) species; the species were: purple leaf plum (2 trees), queen palm (2 trees), London plane (5 trees), and crapemyrtle (1 tree).
- The inventory encompasses specific trees on the property.
- Two (2) trees were in good condition, four (4) trees were in fair condition, and four (4) trees were in poor condition.
- Tree heights ranged from 6 to 40 feet.
- Tree diameters at four and a half feet above grade/standard height (DSH) ranged from 2 to 26 inches.
- All ten (10) trees are recommended for removal under the current plans.

This report focuses on tree recommendations and provides the CRZs and SRZs of these trees for planning purposes. DRG has provided general site preservation recommendations based on the provided construction plans. Arborist monitoring of construction is required whenever work is performed within the drip line of significant trees. Trenching must be done by hand or with pneumatic air spade excavation tools. The trees identified for preservation should be monitored by a Certified Arborist at the end of construction and ongoing as needed.

Introduction

Background

Current plans at 550 Shell Blvd. in Foster City include new landscape on the property. The proposed project has the potential to impact trees on the property. Specific trees over 4 inches in diameter on the property were assessed and evaluated. Ten (10) trees were surveyed to determine the following: impacts from the new landscape plan and significant tree status as defined by the City of Foster City.

Assignment

The arborist visually assessed each tree on the site, and the required tree data were collected using a portable tablet device. Following data collection, specific tree preservation plan elements were calculated that identified each tree's critical and structural root zones (CRZ and SRZ) to better ensure survivability during the planned development. This report establishes the condition of the trees and canopy within the project area. The trees were visually assessed, and photo documented so that changes in condition can be evaluated if needed.

Limits of the Assignment

Many factors can limit specific and accurate data when performing evaluations of trees, their conditions, and the potential for failure or response to site disturbances. No soil or tissue testing was performed. All observations were made from the ground on August 9, 2023, and no soil excavation to expose roots was performed. The most recent development plans were available to determine potential construction impacts. The determinations and recommendations presented here are based on current data and conditions that existed at the time of the evaluation

and cannot be a predictor of the ultimate outcome for the evaluated trees in the future. No physical inspection of the upper canopy, sounding, resistance drilling, or other technologies were used in the evaluation of the trees.

Purpose and Use of Report

The purpose of this report is to provide a summary inventory of all trees within the project area of impact, including an assessment of the current condition and health, as well as providing a tree protection plan for all evaluated trees/canopies that may be impacted by construction plans. The findings in this report can be used to make informed decisions on design planning and guide the trees' long-term care. This report and detailed tree protection plan can also be submitted to the City of Foster City for permitting purposes.

Observations

Methods

A visual inspection was used to develop the findings, conclusions, and recommendations found in this report. Data collection included measuring the diameter of significant trees at approximately 54 inches above grade (DSH), height estimation, a visual assessment of tree condition, structure, and health, and a photographic record. A rating percentage (0-100%) was assigned for each tree's health, structure, and form, and the lowest percentage was used as the overall tree condition.

Site Observations

The project site is located in the City of Foster City south of Hwy 92. The parcel is a commercially owned lot with plans to re landscape the property. The property is surrounded by other commercial properties. There are trees located throughout the property. Select trees on the property were assessed.

Tree Observations

Ten (10) trees were assessed, consisting of four (4) species; the species were: purple leaf plum (2 trees), queen palm (2 trees), London plane (5 trees), and crapemyrtle (1 tree).

The trees are a mixture of mature and young small trees, and tree condition ratings were as follows: two (2) trees were in good condition, four (4) trees were in fair condition, and four (4) trees were in poor condition. Tree diameters ranged from 2 inches to 26 inches with an average of 10.5 inches. Tree heights ranged from 6 feet to 35 feet, with an average height of 24 feet.

A map of tree locations can be found in Appendix A. Tree photographs can be found in Appendix B and a complete Tree Inventory and Condition Assessment can be found in Appendix C.

Root Zone Calculations

The trunk diameters of the assessed trees are often used to determine the Critical Root Zone (CRZ). The CRZ is considered the ideal preservation area for a tree. It can be calculated by adding 1 foot of radius for every inch of trunk diameter measured at 4.5 feet from grade/standard height (DBH). For example; a tree with a DBH of 10 inches has a calculated CRZ radius of 10 feet from the trunk. The CRZ represents the typical rooting area required for tree health and survival and this will be severe as the Tree Protection Zone (TPZ) as seen in Table 1.. As this project is located in the City of Foster City, there is no tree protection ordinance in the city. Some impact (25% or less) within this zone is typically acceptable for average to good-condition trees with basic mitigation/stress reduction measures. Construction activities should not occur within the TPZ of any tree to be retained. This includes but is not limited to the storage of materials, parking of vehicles, contaminating soil by washing out equipment, (concrete, paint, etc.), or changing soil grade.

The structural root zone was calculated using a commonly accepted method established by Dr. Kim Coder in *Construction Damage Assessments: Trees and Sites*. In this method, the root plate size (i.e. pedestal roots, zone of rapid taper area, and roots under compression) and limit of disruption based upon tree DSH is considered as a minimum distance that any disruption should occur during construction. A significant risk of catastrophic tree failure exists if structural roots within this given radius are destroyed or severely damaged. The SRZ is the area where minimal or no disturbance should occur without arborist supervision. The TPZ and SRZ for the surveyed trees are listed in Appendix B, Table 2.

Conclusion and Recommendations

Based on visual evaluations and the impacts of proposed development most of the trees have the potential to be impacted. For the purpose of this report, all of the trees listed below have impacts from construction.

- Trees #1-10 are all part of the new landscaping plan and for planning purposes will be removed.
- Tree #1 was in poor health and should be removed regardless of the landscape plans.
- Tree #2 was in fair health, but due to the proposed landscape plan the tree is recommended for removal.
- Trees #3-4 are in good health, but are in poor locations. Once the trees reach maturity they will cause structural damage to the existing building. The trees should be removed.
- Tree #5 was in poor health and should be removed regardless of the landscape plans.
- Trees #6-9 are in fair condition, but due to the proposed landscape plans the trees are recommended for removal.
- Tree #10 is in good condition, but is a young tree in shrub form. Due to the proposed landscape plans the tree is recommended for removal.
- All of the trees recommended for removal have replacement trees listed on the new landscape plans.
- Any remaining trees should follow the general tree protection guidelines, due to the sensitive nature of
 working within the CRZ of trees to be retained, any excavation or grading within the CRZ must be performed
 with hand tools and supervised by a Certified Arborist to monitor and document any tree impacts. Any
 significant roots (roots 2 inches in diameter or larger) encountered should be cut cleanly and photo
 documented. If severed roots increase failure risk beyond the property owner's tolerance, the Arborist may
 recommend tree removal.
- TPZ fencing should be 6 feet in height and constructed of chain link fencing. The fencing may be moved within the dripline if directed by the on-site Arborist or City Arborist but cannot be moved to within 2 feet of the trunk. Fence posts should be 2-inch in diameter and galvanized, and installed 2 feet below grade. Posts may be movable rather than below grade and may not be spaced more than 10 feet apart. Signs must be posted stating: "TREE PROTECTION FENCE DO NOT MOVE OR REMOVE WITHOUT APPROVAL FROM CITY/PROJECT ARBORIST. NO STORING OF MATERIALS OR MACHINERY." The fence may not be moved without authorization from the Project or City Arborist.
- TPZ fencing must be in place before any equipment is on-site and must remain in place for the entirety of the project and only be removed, temporarily or otherwise, with approval of a Certified Arborist while activities are directly supervised, and replaced immediately after.
- Monitoring of the tree protection specifications by an ISA Certified Arborist or ASCA Registered Consulting Arborist is recommended at monthly intervals.
- No material shall be stored, nor concrete basins washed, or any chemical materials or paint stored within the TPZ of trees, and no construction chemicals or paint should be released into landscaped areas, as these can be toxic to trees and contaminate the soil.
- After construction is complete, the property owner should monitor the trees for at least one year and contact a Certified Arborist to inspect if any lean, limb die-back, leaf drop, or foliage discoloration develops.

¹ Dr. Kim D. Coder, University of Georgia June 1996

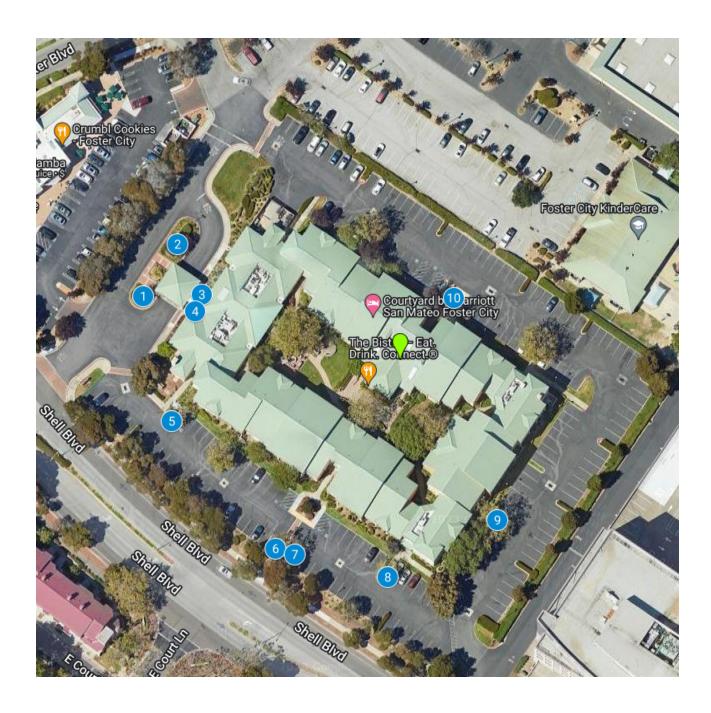


Photo 1. Map overview of site



Photo 1. Tree #1, is in poor condition. The tree is located in the front of the property. The landscape plans have this tree set for removal.

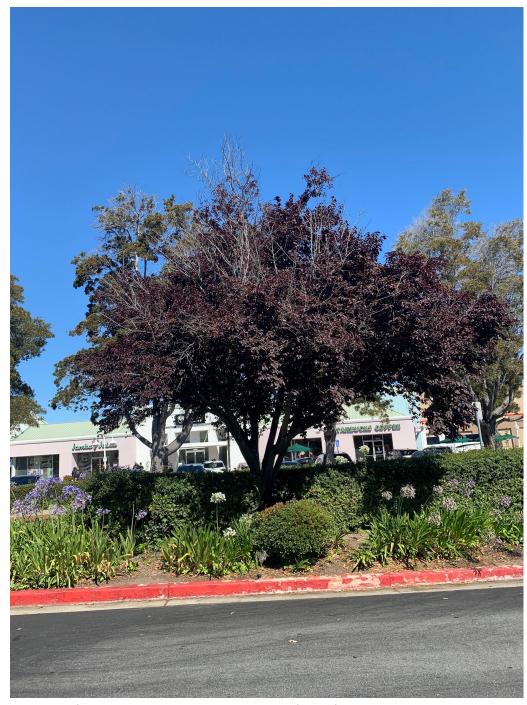


Photo 2. Tree #2, is in fair condition. The tree is located in the front of the property. The landscape plans have this tree set for removal.



Photo 3. Tree #3, is in good condition. The tree is located in the front of the property. The landscape plans have this tree set for removal, regardless of the site plans, the tree is in a poor location and should be removed.



Photo 4. Tree #4, is in good condition. The tree is located in the front of the property. The landscape plans have this tree set for removal, regardless of the site plans, the tree is in a poor location and should be removed.



Photo 5. Tree #5, is in poor condition. The tree is located on the side of the property. The landscape plans have this tree set for removal.



Photo 6. Tree #6 (right) and #7 (left), are in fair and poor condition. The trees are located on the side of the property.

The landscape plans have these trees set for removal.



Photo 7. Tree #8, is in fair condition. The tree is located on the side of the property. The landscape plans have this tree set for removal.



Photo 8. Tree #9, is in fair condition. The tree is located on the rear of the property. The landscape plans have this tree set for removal.



Photo 9. Tree #10, is in fair condition. The tree is located on the side of the property. The landscape plans have this tree set for removal.

Table 1. Tree Inventory and Root Zones

Tree #	Stems	DBH (in.)	Common Name	Botanical Name	Height Canopy (ft) (ft)		SRZ (Radius in ft)	CRZ (Radius in ft)
1	4	16	Purple leaf plum	Prunus cerasifera	7	16		
2	6	26	Purple leaf plum	Prunus cerasifera 30		16	12	26
3	1	5	Queen palm	Syagrus romanzoffiana 6 6		2	5	
4	1	7	Queen palm	Syagrus romanzoffiana	7 6		3	7
5	1	10	London plane	Platanus x acerifolia 35		10	5	10
6	1	7	London plane	Platanus x acerifolia 35		10	3	7
7	1	8	London plane	Platanus x acerifolia 35		14	4	8
8	1	9	London plane	Platanus x acerifolia 30 14		14	4	9
9	1	15	London plane	Platanus x acerifolia 40 20		7	15	
10	4	2	Crapemyrtle	Lagerstoemia 6		2	1	2

Table 2. Condition Assessment August 2023

Tree #	Common Name	Health (%)	Structure (%)	Form (%)	Proposals Removal (Y/N)	Notes
1	Purple leaf plum	55	60	60	Y	The tree has a lot of small deadwood throughout the canopy.
2	Purple leaf plum	65	65	65	Y	The tree is multi-stem.
3	Queen palm	85	85	85	Y	The tree is in a poor location. If the tree were to reach full maturity it will ruin the building structure.
4	Queen palm	85	85	85	Y	The tree is in a poor location. If the tree were to reach full maturity it will ruin the building structure.
5	London plane	55	55	55	Y	About half of the canopy is dead and the tree has a slight lean.
6	London plane	65	65	65	Y	The tree has a slight lean, overextended branches, and surface roots.
7	London plane	65	55	65	Y	The tree has a slight lean, overextended branches, surface roots, and an unbalanced canopy.
8	London plane	65	65	65	Y	The tree has a lean, unbalanced canopy, and small deadwood.
9	London plane	65	65	65	Y	The tree has small deadwood, overextended branches, surface roots, and hangers in the tree.
10	Crapemyrtle	70	50	50	Y	The tree is very small and almost in shrub form.