



Preliminary Arborist Report

**150 E Santa Clara Street
San Jose, CA 95113**

Prepared For:
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150 E Santa Clara St.

San Jose, CA

Table of Contents

	Page
Introduction and Overview	1
Tree Assessment Methods	1
Description of Trees	2
Suitability for Preservation	3
Tree Mitigation Requirements	5

List of Tables

Table 1. Tree condition ratings and frequency of occurrence.	2
Table 2. Tree suitability for preservation.	5
Table 3. City of San Jose mitigation requirements.	6
Table 4. Estimated tree mitigation.	6

Exhibits

Tree Location Map

Tree Assessment Form

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San Jose, CA

Introduction and Overview

Bayview Development Group, Inc. plans to redevelop the subject property located in San Jose, CA. HortScience | Bartlett Consulting, a Division of The F.A. Bartlett Tree Expert Company, was asked to prepare a **Preliminary Arborist Report** for this project for submittal to the City of San Jose. The property consists of three parcels: 142-150 East Santa Clara Street, 130 East Santa Clara Street, and 17-19 South 4th Street. Current site use is mixed-use buildings with ground floor retail and a small parking lot. Unless otherwise specified, in this report the project site will be referred to as 150 E. Santa Clara St. The *Preliminary Review Package* by RMW Architecture and Interiors depicted the construction of a six-story commercial building at 150 E. Santa Clara Street, a four-story commercial building at 130 E. Santa Clara Street, and a two-story building at 17-19 S. 4th Street, linking the E. Santa Clara St. properties. The plans also depicted the construction of an underground garage at 150 E. Santa Clara Street.

This report provides the following information:

1. An assessment of the health, structural condition, and suitability for preservation of the trees located on and adjacent to the proposed project area based on a visual inspection from the ground.
2. An assessment of the trees that would be preserved and removed based on preliminary development plans.
3. Preliminary guidelines for tree preservation during the design, construction, and maintenance phases of development.

Tree Assessment Methods

Trees were assessed on March 2nd, 2021 and were numbered #1 to 7. The assessment included all trees 6' in height and taller located within and adjacent to the proposed project area. The assessment procedure consisted of the following steps:

1. Identifying the tree species;
2. Assigning each tree an identifying number and recording its location on a map. The offsite street trees were not tagged with physical metal tags.
3. Measuring the trunk diameter at a point 54" above grade.
4. Evaluating the health and structural condition using a scale of 1 – 5 based on a visual inspection from the ground:
 - 5 - A healthy, vigorous tree, reasonably free of signs and symptom of disease, with good structure and form typical of the species.
 - 4 - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
 - 3 - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
 - 2 - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
 - 1 - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.

5. Rating the suitability for preservation as “high”, “moderate”, or “low”. Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.

High:	Trees with good health and structural stability that have the potential for longevity at the site.
Moderate:	Trees with somewhat declining health and/or structural defects that can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in ‘high’ category.
Low:	Trees in poor health or with significant structural defects that cannot be mitigated. The tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes and generally are unsuited for use areas.

Description of Trees

Seven (7) trees representing two species were evaluated (Table 1). All were street trees adjacent to the proposed project area. Descriptions of each tree are found in the **Tree Assessment Form**, and approximate locations are plotted on the **Tree Location Map** (see Exhibits).

**Table 1. Condition ratings and frequency of occurrence of trees.
150 E Santa Clara St. San Jose, CA**

Common Name	Scientific Name	Condition			Total
		Poor (1-2)	Fair (3)	Good (4-5)	
Raywood ash	<i>Fraxinus angustifolia</i> 'Raywood'	1	2	-	3
Red oak	<i>Quercus rubra</i>	-	4	-	4
Total		1	6	-	7

Raywood ash trees #1 and 3 were in fair condition, while tree #2 was poor. The three ashes were planted in 4' by 4' concrete cutouts along E. Santa Clara Street. Trunk diameters were between 11 and 16". All three trees displayed varying levels of mechanical damage on the street-facing side. The root flare on tree #1 was also buried. All three trees had been previously topped with the crown of tree #2 (Photo 1) the most severely affected.

Photo 1 (right): Raywood ash #2 had been topped resulting in poor form and structure.



Red oaks #4 to 7 were in fair condition, with trunk diameters between 11 and 17". They were also street trees located in pavement cutouts. Trees #4 - 6 were in 4' by 6' cutouts. Tree #7 was in a 7' by 10' cutout. Trees had upright trunks but crowns were one-sided due to pruning on the building side (Photo 2). Their planting basins were filled with decomposed granite or a similar groundcover. Tree #6 lacked a basal flare.

The City of San Jose protects trees with trunk diameters of 12" or greater (Municipal Code Chapter 13.32) as well as all street trees. All seven of the trees assessed were street trees and cannot be removed without a permit. In addition, trees #2, 3, 4, 6, and 7 met the criterion for *Ordinance-size*.



Photo 2: Red oaks #4 – 7 have spreading canopies overhanging S. 4th Street.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability, and longevity. For trees growing in open fields, away from areas where people and property are present, structural defects and/or poor health presents a low risk of damage or injury if they fail. However, we must be concerned about safety in use areas. Therefore, where development encroaches into existing plantings, we must consider their structural stability as well as their potential to grow and thrive in a new environment. Where development will not occur, the normal life cycles of decline, structural failure and death should be allowed to continue.

Evaluation of suitability for preservation considers several factors:

- **Tree health**
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. For example, Raywood ash trees had poor form and structure due to topping.
- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. Red oak and Raywood ash are moderate in their tolerance of construction impacts.
- **Tree age and longevity**
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.
- **Species invasiveness**
Species that spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database <http://www.cal-ipc.org/plants/inventory/> lists species identified as being invasive. San Jose is part of the Central West Floristic Province. Neither red oak nor Raywood ash has been identified as invasive.

Each tree was rated for suitability for preservation based upon its age, health, structural condition, and ability to safely coexist within a development environment (see **Tree Assessment Form** in Exhibits, and Table 2). We consider trees with high suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Table 2. Tree suitability for preservation. 150 E Santa Clara St. San Jose, CA.

High	These are trees with good health and structural stability that have the potential for longevity at the site. None of the assessed trees had high suitability for preservation.
Moderate	Trees in this category have fair health and/or structural defects that may be abated with treatment. These trees require more intense management and monitoring, and may have shorter life-spans than those in the “high” category. The four red oaks (#4 – 7) had moderate suitability for preservation.
Low	Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. The three Raywood ashes (#1 – 3) had low suitability for preservation.

Evaluation of Impacts and Recommendations

Appropriate tree retention requires a practical match between the location and intensity of construction activities and the quality and health of trees. The **Tree Assessment** was the reference point for tree health, condition, and suitability for preservation. I used the *Preliminary Review Package* by RMW Architecture and Interiors dated 12/14/20 to estimate impacts to trees. The plans were preliminary in nature and did not include tree locations nor details about grading, drainage, bioretention, and utilities. When more detailed plans become available, potential impacts to trees should be reevaluated by the project arborist.

The plans depicted the demolition of the existing mixed-use buildings located on the three parcels making up the project site. The *Preliminary Review Package* depicts the construction of a six-story commercial building with underground parking at 150 E. Santa Clara Street, a four-story commercial building at 130 E. Santa Clara Street, and a two-story building at 17 S. 4th Street, linking the E. Santa Clara St. properties. The new construction will surround a parcel with the address 134-140 E. Santa Clara Street on all three sides; this parcel is not included in the proposed project but borders the three parcels being redeveloped. A new driveway to the underground parking is depicted along the frontage of 17 S. 4th Street.

Based on my observations of the trees and a review of the proposed project plans, I recommend the removal and replacement of all seven street trees surrounding the site.

While the trees are outside the proposed building footprints, they will likely be severely impacted by nearby demolition, site clearing, and construction work. Raywood ashes #1 to 3, additionally, had low suitability for preservation with defects in structure that cannot be corrected. These trees are unlikely to be assets to the new site even if successfully preserved.

Tree Mitigation Requirements

The City of San Jose requires mitigation of trees removed on development sites. The species and exact number of trees to be planted on the site will be determined in consultation with the City Arborist and the Department of Planning, Building, and Code Enforcement.

The City of San Jose requires the replacement of removed trees following the ratios shown in Table 3.

Table 3. City of San Jose Mitigation Requirements

Diameter of Tree to be Removed	Type of Tree to be Removed			Minimum Size of Each Replacement Tree
	Native	Non-Native	Orchard	
12 inches or greater	5:1	4:1	3:1	15-gallon container
6 - 11 inches	3:1	2:1	none	15-gallon container
less than 6 inches	1:1	1:1	none	15-gallon container
x:x = tree replacement to tree loss ratio				
Note: Trees greater than 12" diameter shall not be removed unless a Tree Removal Permit, or equivalent, has been approved for the removal of such trees.				

**Table 4. Estimates tree mitigation.
150 E Santa Clara St.**

Tree No.	Species	Diameter	Ordinance Size?	Disposition	Native/ Non-Native/ Orchard	Replacement Ratio	# of trees to be replaced
1	Raywood ash	11	No	Remove	Non-Native	2:1	2
2	Raywood ash	15	Yes	Remove	Non-Native	4:1	4
3	Raywood ash	16	Yes	Remove	Non-Native	4:1	4
4	Red oak	18	Yes	Remove	Non-Native	4:1	4
5	Red oak	11	No	Remove	Non-Native	2:1	2
6	Red oak	14	Yes	Remove	Non-Native	4:1	4
7	Red oak	17	Yes	Remove	Non-Native	4:1	4

Based on my evaluation of the plans and the standard replacement ratios for the City of San Jose, I **calculated 24 15-gallon trees as the replacement requirement for this project** (Table 4).

Alternative Mitigation Measures

In the event the project site does not have sufficient area to accommodate the required tree mitigation, one or more of the following measures may be implemented, to the satisfaction of the City's Environmental Principal Planner, at the development permit stage:

- The size of a 15-gallon replacement tree can be increased to 24" box and count as two replacement trees.
- An alternative site(s) will be identified for additional tree planting. Alternative sites may include local parks or schools or installation of trees on adjacent properties for screening
- A donation of \$755 per mitigation tree to Our City Forest or San Jose Beautiful for in-lieu off-site tree planting in the community. These funds will be used for tree planting and maintenance of planted trees for approximately three years. A donation receipt for off- site tree planting will be provided to the Planning Project Manager prior to issuance of a development permit

Maintenance of impacted trees

Our procedures included assessing trees for observable defects in structure. This is not to say that trees without significant defects will not fail. Failure of apparently defect-free trees does occur, especially during storm events. Wind forces, for example, can exceed the strength of defect-free wood causing branches and trunks to break. Wind forces coupled with rain can saturate soils, reducing their ability to hold roots, and blow over defect-free trees. Although we cannot predict all failures, identifying those trees with observable defects is a critical component of enhancing public safety.

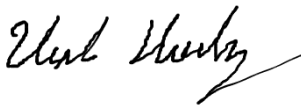
Furthermore, trees change over time. Our inspections represent the condition of the tree at the time of inspection. As trees age, the likelihood of failure of branches or entire trees increases. Annual tree inspections are recommended to identify changes to tree health and structure. In addition, trees should be inspected after storms of unusual severity to evaluate damage and structural changes. Initiating these inspections is the responsibility of the client and/or tree owner.

Preserved trees will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority.

If you have any questions about my observations or recommendations, please contact me.

HortScience | Bartlett Consulting

Uriel Hernandez, Urban Forester



Certified Arborist #WE-11955A

Tree Risk Assessment Qualified



Exhibits

Tree Location Map

Tree Assessment Form



Tree Location Map

**148-150 E. SANTA CLARA ST.,
17 S. 4th ST., &
130-132 E. SANTA CLARA ST.**

San Jose, CA 95113

Prepared for:
Bayview Development
Group, Inc.

60 S. Market Street, Suite 450

April 2021

No Scale



Notes:

Base map provided by:
Google Maps

Numbered tree locations are approximate



PROJECT SCOPE
OF WORK



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Tree Assessment Form

150 E Santa Clara Street
San Jose, CA
April 2021



Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
1	Raywood ash	11	Yes	3	Low	In 4'x4' cutout; decomposed granite base; buried root flare; codominant branches at 8'; lean to west; topped.
2	Raywood ash	15	Yes	2	Low	In 4'x4' cutout; codominant branches at 7'; lean to west; topped.
3	Raywood ash	16	Yes	3	Low	In 4'x4' cutout; codominant branches at 6'; upright trunk; lions tail form.
4	Red oak	18	Yes	3	Moderate	In 4'x6' cutout; decomposed granite base; multiple attachments at 8'; upright form.
5	Red oak	11	Yes	3	Moderate	In 4'x6' cutout; decomposed granite base; multiple attachments at 8'; upright form; mechanical damage on trunk.
6	Red oak	14	Yes	3	Moderate	In 4'x6' cutout; decomposed granite base; multiple attachments at 8'; upright form; buried root flare.
7	Red oak	17	Yes	3	Moderate	In 7'x10' cutout; decomposed granite base; multiple attachments at 9'; upright form; surface roots.