Tree Inventory, Assessment and Protection

64-70 and 80-82 Glen Eyrie
San Jose, CA 95125

January 17, 2019

Prepared for:

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GEC Properties, LLC

Prepared By:

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ISA - Tree Risk Assessor Qualified

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Summary

The plans indicate the existing structures will be demolished and new residences constructed. The inventory contains 19 trees comprised of 10 different species with 10 “Ordinance trees” and 8 “Street trees” along with 2 coast redwoods (Sequoia sempervirens) originating on the adjacent site. Most of the trees are in good condition with four fair and one Monterey pine (Pinus radiata) “Street tree” in poor shape. All seven camphor (Cinnamomum camphora) “Street trees” were considered to have good suitability for preservation. Two coast redwoods (845 and 846) have fair suitability for retention. The remaining interior trees all have poor suitability as they will be both highly impacted and are small specimens that can easily be replaced. All the trees located in the interior of the site including eight “Ordinance trees” along with two “Street trees” will be highly impacted and caused to be removed. All the trees indicated for removal would meet the finding as stated in Chapter 12.32.100 section A subsections (2) and (3). Tree protection for this project will require a Type II scheme and fence will need to be placed at the sidewalk and curb to enclose those retained.

Introduction

Background

Dan Askari asked me to assess the site, trees, proposed footprint plan, and to provide a report with my findings and recommendations to help satisfy the City of San Jose planning requirements.

Assignment

1. Provide an arborist’s report including an assessment of the trees within the project area that could be affected. The assessment is to include the species, size (trunk diameter), condition (health, structure, form), and suitability for preservation ratings.
2. Provide tree protection guidelines, specifications, and expected impact ratings for those affected by the project.
Limits of the Assignment

1. No tree risk assessments were performed. The information in this report is limited to the condition of the trees during my inspection on January 15, 2019.

2. The plans reviewed for this assignment were as follows in Table 1 below.

<table>
<thead>
<tr>
<th>Plan</th>
<th>Date</th>
<th>Sheet</th>
<th>Reviewed</th>
<th>Source</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Site Topographic Map or A.L.T.A with tree locations</td>
<td></td>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed Site Plan</td>
<td>8/28/18</td>
<td>L1.1</td>
<td>Yes</td>
<td>Reed Associates</td>
<td></td>
</tr>
<tr>
<td>Demolition Plan</td>
<td></td>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Staging</td>
<td></td>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grading and Drainage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utility Plan and Hook-up locations</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Exterior Elevations</td>
<td></td>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscape Plan</td>
<td>8/28/18</td>
<td>L1.1</td>
<td>Yes</td>
<td>Reed Associates</td>
<td></td>
</tr>
<tr>
<td>Irrigation Plan</td>
<td></td>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T-1 Tree Protection Plan</td>
<td></td>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 property owners, owner’s agents, and the City of San Jose as a reference for existing tree conditions to help satisfy planning requirements.
Observations

Chapter 13.32.020 defines an “Ordinance tree” size tree as follows: "Tree” means any live or dead woody perennial plant characterized by having a main stem or trunk which measures thirty-eight (38) inches or more in circumference at a height of fifty-four (54) inches above natural grade slope. For purposes of this Chapter, a multi-trunk tree shall be considered a single tree and measurement of that tree shall include the sum of the circumference of the trunks of that tree at a height of fifty-four inches above natural grade slope. "Tree" shall include the plural of that term.” A “Street tree” is defined as follows: "Street tree" shall mean any tree that is planted on a street.”

The inventory contains all the trees growing on the property. In addition to trees within the property boundary those originating on adjacent sites which could be affected were also included. There are 19 trees comprised of 10 different species with 10 “Ordinance trees” and 8 “Street trees” with 2 coast redwoods originating on the adjacent site and one non-ordinance Japanese maple (Acer palmatum) (Table 2).

The chart below indicates the species distribution for the site (Chart 1).
The table below lists the trees and their characteristics (Table 2).

### Table 2: Tree Inventory Characteristics

<table>
<thead>
<tr>
<th>Tree Species</th>
<th>I.D. #</th>
<th>Trunk Diameter (in.)</th>
<th>~ Height (ft.)</th>
<th>~ Canopy Diameter (ft.)</th>
<th>Vigor</th>
<th>Structure</th>
<th>Form</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese maple (Acer palmatum)</td>
<td>838</td>
<td>6</td>
<td>15</td>
<td>15</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Non-ordinance</td>
</tr>
<tr>
<td>curly willow (Salix babylonica 'Tortuosa')</td>
<td>839</td>
<td>19.5</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Fair</td>
<td>Good</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>Chinese tallow tree (Triadica sebifera)</td>
<td>840</td>
<td>13.5</td>
<td>25</td>
<td>25</td>
<td>Good</td>
<td>Fair</td>
<td>Good</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>white mulberry (Morus alba)</td>
<td>841</td>
<td>24</td>
<td>30</td>
<td>25</td>
<td>Good</td>
<td>Poor</td>
<td>Fair</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>tulip magnolia (Magnolia × soulangiana)</td>
<td>842</td>
<td>7, 7, 7, 7</td>
<td>25</td>
<td>25</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>coast redwood (Sequoia sempervirens)</td>
<td>843</td>
<td>24</td>
<td>75</td>
<td>35</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>coast redwood (Sequoia sempervirens)</td>
<td>844</td>
<td>24</td>
<td>75</td>
<td>35</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>coast redwood (Sequoia sempervirens)</td>
<td>845</td>
<td>34</td>
<td>75</td>
<td>35</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>coast redwood (Sequoia sempervirens)</td>
<td>846</td>
<td>36</td>
<td>75</td>
<td>35</td>
<td>Good</td>
<td>Poor</td>
<td>Fair</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>bay laurel (Umbellularia californica)</td>
<td>847</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>Good</td>
<td>Poor</td>
<td>Fair</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>Jacaranda (Jacaranda mimosifolia)</td>
<td>848</td>
<td>12</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Poor</td>
<td>Fair</td>
<td>Ordinance tree</td>
</tr>
<tr>
<td>camphor (Cinnamomum camphora)</td>
<td>849</td>
<td>18</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Poor</td>
<td>Good</td>
<td>Street tree</td>
</tr>
<tr>
<td>camphor (Cinnamomum camphora)</td>
<td>850</td>
<td>15</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Street tree</td>
</tr>
</tbody>
</table>
Plan Observations

The plans indicate the existing structures will be demolished and new residences will be constructed. All the trees in the interior of the site will be removed including nine “Ordinance trees” along with two “Street trees”. There is one missing street tree on the plans which I have indicated as #853 in this report. No civil drawings were provided.
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 in good condition are comprised of several camphor “Street trees” (Chart 2). The trees around the site are all relatively small growing species and do not contain significant defects or conditions. Four trees are in fair condition and include mulberry #841, tulip poplar #842, bay laurel #847, and Jacaranda #848 growing in the interior. The Monterey pine “Street tree” is the only tree considered to be in poor condition.

![Chart 2: Condition Ratings](chart2.png)
Suitability for Preservation

A tree’s suitability for preservation 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). The following list defines the rating scale:

- **Good** = Trees with good health, structural stability and longevity after construction.
- **Fair** = Trees with fair health and/or structural defects that may be mitigated through treatment. These trees require more intense management and monitoring, before, during, and after construction, and may have shorter life expectancy after development.
- **Poor** = Trees are expected to decline during or after construction regardless of 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.

All seven camphor “Street trees” were considered to have good suitability for preservation, although they are and will repeatedly damage the surrounding sidewalks and curbs and need to be reduced for the overhead utility clearance. Two trees, the coast redwoods (845 and 846), growing as a small stand in the interior have fair stability for retention. The remaining interior trees all have poor suitability as they will be both highly impacted and are small specimens that can easily be replaced. The two coast redwoods (843 and 844) originate on the adjacent site and their suitability is irrelevant for the purposes of this assessment (Chart 3).

![Chart 3: Suitability for Preservation](chart3.png)
### Expected Impact Level

Impact level defines how a tree may be affected by construction activity 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.

All the trees located in the interior including eight “Ordinance trees” and two “Street trees” will be highly impacted and caused to be removed (Chart 4). The six remaining “Street trees” will likely not be affected but there may be site work nearby and they are assessed as “moderate-low”. The two trees originating on the adjacent property will not be impacted. All the trees indicated for removal would meet the finding as stated in Chapter 12.32.100 section A subsections “(2) *That the location of the tree with respect to a proposed improvement unreasonably restricts the economic development of the parcel in question;*” and (3) *That the condition of the tree with respect to disease, danger of falling, proximity to an existing or proposed structure, and/or interference with utility services, is such that preservation of the public health or safety requires its removal;*”

![Chart 4: Expected Impact](image)
Tree Protection

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 protection from 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).

Tree protection for this project will require a Type II scheme (Figure 2 below) because the only trees to remain are “Street trees”. Fence will need to be placed at the sidewalk and curb to enclose those retained and protect their trunks and exposed soil space.

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.
Conclusion

The plans indicate the existing structures will be demolished and new residences constructed. The inventory contains all the trees growing on the property. In addition to those within the property boundary those originating on adjacent sites which could be affected were also included. There are 19 trees comprised of 10 different species with 10 “Ordinance trees” and 8 “Street trees” along with 2 coast redwoods originating on the adjacent site. Most of the trees are in good condition with four fair and one Monterey pine “Street tree” in poor shape. All seven camphor “Street trees” were considered to have good suitability for preservation. Two trees, the coast redwoods (845 and 846), growing as a small stand in the interior have fair suitability for retention. The remaining interior trees all have poor suitability as they will be both highly impacted and are small specimens that can easily be replaced. All the trees located in the interior of the site including eight “Ordinance trees” along with two “Street trees” will be highly impacted and caused to be removed. The six remaining “Street trees” will likely not be affected but there may be site work nearby and they are assessed as “moderate-low”. The two trees originating on the adjacent property will not be impacted by what is show on the site plan. All the trees indicated for removal would meet the finding as stated in Chapter 12.32.100 section A subsections (2) and (3). Tree protection for this project will require a Type II scheme and fence will need to be placed at the sidewalk and curb to enclose those retained.
Recommendations

1. Place tree numbers and any protection schemes on all the plans.

2. Place tree protection fence around the street trees to be retained at the edge of sidewalk and curb to enclose them in a Type II scheme.

3. 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.

4. 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.

5. Copy Appendix A, B, and D of the arborist report to the final set of plans, which will serve as part of the Tree Preservation Plan.

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 Phase

1. Monitor for pest and disease issues especially ambrosia beets activity and treat as necessary.

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.

3. Have a qualified arborist perform a Level 2: Basic Tree Risk Assessment following the protocol suggested in the Best Management Practices: Tree Risk Assessment prior to site occupancy.
Bibliography


City of San Jose municipal code.

City of Palo Alto Tree Technical Manual.


Glossary of Terms

**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.

**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 for 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.

**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.

**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: Site Plan and Tree Locations
## Appendix B: Tree Inventory and Assessment Tables

Table 3: Tree Inventory and Assessment

<table>
<thead>
<tr>
<th>Tree Species</th>
<th>I.D.</th>
<th>Trunk Diameter (in.)</th>
<th>~ Height (ft.)</th>
<th>~ Canopy Diameter (ft.)</th>
<th>Condition</th>
<th>Suitability</th>
<th>Expected Impact</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese maple (Acer palmatum)</td>
<td>838</td>
<td>6</td>
<td>15</td>
<td>15</td>
<td>Good</td>
<td>Poor</td>
<td>High</td>
<td>Non-ordinance size/ Remove</td>
</tr>
<tr>
<td>curly willow (Salix babylonica 'Tortuosa')</td>
<td>839</td>
<td>19.5</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Poor</td>
<td>High</td>
<td>Ordinance tree/ Remove</td>
</tr>
<tr>
<td>Chinese tallow tree (Triadica sebifera)</td>
<td>840</td>
<td>13.5</td>
<td>25</td>
<td>25</td>
<td>Good</td>
<td>Poor</td>
<td>High</td>
<td>Ordinance tree/ Remove</td>
</tr>
<tr>
<td>white mulberry (Morus alba)</td>
<td>841</td>
<td>24</td>
<td>30</td>
<td>25</td>
<td>Fair</td>
<td>Poor</td>
<td>High</td>
<td>Ordinance tree/ Remove</td>
</tr>
<tr>
<td>tulip magnolia (Magnolia × soulangeana)</td>
<td>842</td>
<td>7, 7, 7, 7</td>
<td>25</td>
<td>25</td>
<td>Fair</td>
<td>Poor</td>
<td>High</td>
<td>Ordinance tree/ Remove</td>
</tr>
<tr>
<td>coast redwood (Sequoia sempervirens)</td>
<td>843</td>
<td>24</td>
<td>75</td>
<td>35</td>
<td>Good</td>
<td>N/A</td>
<td>Low</td>
<td>Ordinance tree/ Retain</td>
</tr>
<tr>
<td>coast redwood (Sequoia sempervirens)</td>
<td>844</td>
<td>24</td>
<td>75</td>
<td>35</td>
<td>Good</td>
<td>N/A</td>
<td>Low</td>
<td>Ordinance tree/ Retain</td>
</tr>
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<td>coast redwood (Sequoia sempervirens)</td>
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<td>34</td>
<td>75</td>
<td>35</td>
<td>Good</td>
<td>Fair</td>
<td>High</td>
<td>Ordinance tree/ Remove</td>
</tr>
<tr>
<td>coast redwood (Sequoia sempervirens)</td>
<td>846</td>
<td>36</td>
<td>75</td>
<td>35</td>
<td>Good</td>
<td>Fair</td>
<td>High</td>
<td>Ordinance tree/ Remove</td>
</tr>
<tr>
<td>bay laurel (Umbellularia californica)</td>
<td>847</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>Fair</td>
<td>Poor</td>
<td>High</td>
<td>Ordinance tree/ Remove</td>
</tr>
<tr>
<td>Tree Species</td>
<td>I.D. #</td>
<td>Trunk Diameter (in.)</td>
<td>~ Height (ft.)</td>
<td>~ Canopy Diameter (ft.)</td>
<td>Condition</td>
<td>Suitability</td>
<td>Expected Impact</td>
<td>Status</td>
</tr>
<tr>
<td>------------------------------</td>
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<td>----------------------</td>
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<td>-------------------------</td>
<td>-----------</td>
<td>-------------</td>
<td>------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Jacaranda (Jacaranda mimosifolia)</td>
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<td>30</td>
<td>30</td>
<td>Fair</td>
<td>Poor</td>
<td>High</td>
<td>Ordinance tree/ Remove</td>
</tr>
<tr>
<td>camphor (Cinnamomum camphora)</td>
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<td>18</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Good</td>
<td>Moderate -Low</td>
<td>Street tree/ Retain</td>
</tr>
<tr>
<td>camphor (Cinnamomum camphora)</td>
<td>850</td>
<td>15</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Good</td>
<td>Moderate -Low</td>
<td>Street tree/ Retain</td>
</tr>
<tr>
<td>Monterey pine (Pinus radiata)</td>
<td>851</td>
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<td>30</td>
<td>Poor</td>
<td>Poor</td>
<td>High</td>
<td>Street tree/ Remove</td>
</tr>
<tr>
<td>camphor (Cinnamomum camphora)</td>
<td>852</td>
<td>23.5</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Good</td>
<td>Moderate -Low</td>
<td>Street tree</td>
</tr>
<tr>
<td>camphor (Cinnamomum camphora)</td>
<td>853</td>
<td>21</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Good</td>
<td>Moderate -Low</td>
<td>Street tree</td>
</tr>
<tr>
<td>camphor (Cinnamomum camphora)</td>
<td>854</td>
<td>18</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Good</td>
<td>High</td>
<td>Street tree/ Remove</td>
</tr>
<tr>
<td>camphor (Cinnamomum camphora)</td>
<td>855</td>
<td>24.5</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Good</td>
<td>Moderate -Low</td>
<td>Street tree</td>
</tr>
<tr>
<td>camphor (Cinnamomum camphora)</td>
<td>856</td>
<td>16</td>
<td>30</td>
<td>30</td>
<td>Good</td>
<td>Good</td>
<td>Moderate -Low</td>
<td>Street tree</td>
</tr>
</tbody>
</table>
Appendix C: Photographs
C1: Curley willow #839
C2: Tallow #840
C3: Mulberry #841
C4: Tulip magnolia #842
C5: Coast redwoods #843 and #844
C6: Coast redwoods #845 and #846
C7: Bay laurel #847
C8: Jacaranda #848
C9: Street Trees 849 through 856
right to left
Appendix D: Tree protection guidelines

13.32.130 - Safeguarding trees during construction.

For the purpose of safeguarding trees during construction, all of the following conditions shall apply to all such trees except for trees for which a tree removal permit has been issued or which are required to be removed pursuant to Chapter 13.28:

A. Prior to the issuance of any approval or permit for the construction of any improvement on the building site, all trees on the site shall be inventoried by the owner or contractor as to size, species and location on the lot and the inventory shall be submitted on a topographical map to the director; and

B. Damage to any tree during construction shall be immediately reported by a person causing the damage, the responsible contractor, or the owner to the director, and the contractor and/or owner shall treat the tree for damage in the manner specified by the city arborist; and

C. No construction equipment, vehicles or materials shall be stored, parked or standing within the tree dripline; and

D. Drains shall be installed according to city specifications so as to avoid harm to trees due to excess watering; and

E. Wires, signs and other similar items shall not be attached to trees; and

F. Cutting and filling around the base of trees shall be done only after consultation with the city arborist and then only to the extent authorized by the city arborist; and

G. No paint thinner, paint, plaster or other liquid or solid excess or waste construction materials or wastewater shall be dumped on the ground or into any grate between the dripline and the base of the tree or uphill from any tree where certain substances might reach the roots through a leaching process; and

H. Fencing shall be installed outside the canopy of the tree to the dripline unless otherwise directed by the certified arborist to prevent injury to trees making them susceptible to disease causing organisms; and

I. Wherever cuts or soil disturbances are made in the ground near the roots of trees, appropriate measures shall be taken to prevent exposed soil from drying out and causing damage to tree roots as prescribed in a certified arborist report.

(Ords. 21362, 26595.)

Pre-Construction Meeting with the Project Arborist

Prior to beginning work, all contractors involved with the project should attend a pre construction meeting with the project arborist to review the tree protection guidelines. Access routes, storage areas, and work procedures will be discussed. Tree protection locations should be marked before any fencing contractor arrives.
Tree Protection Zones and Fence Specifications

Tree protection fence should be established prior to the arrival of construction equipment or materials on site. Fence should be comprised of six-foot high chain link fence mounted on eight-foot tall, 1 7/8-inch diameter galvanized posts, driven 24 inches into the ground and spaced no more than 10 feet apart. Once established, the fence must remain undisturbed and be maintained throughout the construction process until final inspection.

The fence should be maintained throughout the site during the construction period and should be inspected periodically for damage and proper functions.

Fence should be repaired, as necessary, to provide a physical barrier from construction activities.

A final inspection by the city arborist at the end of the project will be required prior to removing any tree protection fence and replacement tree shall be planted at this time.

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.

Restrictions Within the Tree Protection Zone

No storage of construction materials, debris, or excess soil will be allowed within the Tree Protection Zone. Spoils from the trenching shall not be placed within the tree protection zone either temporarily or permanently. Construction personnel and equipment shall be routed outside the tree protection zone of 39 feet from the trunk.

Root Pruning

Root pruning shall be supervised by the project arborist. When roots over two inches in diameter are encountered 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.

Timing

If the construction is to occur during the summer months supplemental watering and bark beetle treatments should be applied to help ensure survival during and after construction.

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. Tree pruning should be specified according to ANSI A-300A pruning standards and adhere to ANSI Z133.1 safety standards. Trees that need to be removed or pruned should be identified in the pre-construction walk through.

Tree Protection Signs

All sections of fencing should be clearly marked with signs stating that all areas within the fencing are Tree Protection Zones and that disturbance is prohibited. Text on the signs should be in both English and Spanish (Appendix E).

Signage stating, “Warning-This fencing shall not be removed without permission from the City of San Jose Planning Office (408) 535-3555”. Shall be placed on all tree protection fencing and remain until final occupancy.
13.32.100 - Permit findings.

A. Neither the director nor the planning commission on appeal shall issue a permit for the removal of any tree, other than an unsuitable tree, on any private parcel of land in the city unless the director or the commission on appeal makes at least one of the following findings:

1. That the tree affected is of a size, type and condition, and is in such a location in such surroundings, that its removal would not significantly frustrate the purposes of this chapter as set forth in Section 13.32.010

2. That the location of the tree with respect to a proposed improvement unreasonably restricts the economic development of the parcel in question; or

3. That the condition of the tree with respect to disease, danger of falling, proximity to an existing or proposed structure, and/or interference with utility services, is such that preservation of the public health or safety requires its removal; or.

In connection with an application to remove a dead tree, the director or the planning commission on appeal shall consider whether the subject tree was in any way injured, removed or caused to be injured or removed by the applicant, in addition to the findings required to be set forth pursuant to the provisions hereinabove.

C. The planning director shall not issue a permit for the removal of an unsuitable tree on any private parcel of land in the city unless the director finds that the tree is an unsuitable tree as defined in Section 13.32.020.(Prior code § 8935; Ords. 21363, 26595, 29195.)
Appendix E: Tree Protection Signs
E1: English

Warning
Tree Protection Zone
This Fence Shall Not Be Removed Without Permission From The City of San Jose Planning Office
(408) 535-3555
(408) 535-3555

City of San Jose Planning Office
Este cercado no será eliminado sin permiso de la

Zona De Arbol Protetido

Cuideado
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

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