



Tree Inventory, Valuation and Construction Guidelines
885 El Camino Real & 15-35 9th Street/
Central Park
San Mateo, CA

Submitted to:
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Summary

The following report can be summarized as follows:

The project site tree inventory consisted of seventy-eight (78) trees of six (6) inches or greater diameter at forty-eight (48) inches above grade – total of fifty-eight (58) trees were quantified on-site and twenty (20) trees were quantified off-site on the northeast neighboring private property line. Fifty-four (54) Heritage Trees are onsite, of which twenty-three (23) are recommended for removal. Eighteen (18) non-Heritage Trees are recommended for removal for a total of forty-one (41) Heritage and non-Heritage Tree removals.

The Central Park tree inventory consisted of twenty-one (21) trees of six (6) inches or greater diameter at forty-eight (48) inches above grade. There were ten (10) Heritage Trees surveyed. All trees are to be preserved.

Impacts to specific trees slated for preservation have been assessed and specific recommendations are given to ensure their long-term survival.

Introduction

The 885 El Camino Real and 15-35 9th Street property in San Mateo, California, is proposed to be redeveloped. As a result of the proposed redevelopment, a tree inventory for the trees on and adjacent to the project site were inventoried and valued as required by the City of San Mateo. Individuals that were identified for preservation are also required to have specific recommendations to ensure that they will survive construction activities.

Arborwell was retained to inventory and value all trees for the property of 885 El Camino Real and 15-35 9th Street, tree along the neighboring property to the northeast, and all Central Park trees adjacent to the property of 885 El Camino Real and 15-35 9th Street (see Figure 1 of Exhibit 1). In addition to the inventory and valuation, construction guidelines are provided in this report. Included in this report are additional images of each individual (Exhibit 2), the tree evaluation schedule (Exhibit 3), and the inventory maps (Exhibit 4).

Assignment

An inventory of all major vegetation – trees with a diameter of six (6) inches or greater, as defined by Chapter 23.40.020 of the City of San Mateo’s municipal code, was performed. The site and adjacent areas were inspected on March 21, 2013, and October 21, 2014. The design drawings were issued in January 2015, and the site and adjacent areas were re-inspected January 7, 2015.

Note that the recommendations in this report are based on visual inspection on the above-ground parts of the tree at the time of the site visit. No soil was removed for below-grade inspection and no aerial inspection was performed. Information in this letter may warrant further investigation as site conditions change over time.

Data collected per individual tree for the inventory are as follows: tag number and corresponding property location, scientific name, common name, diameter at forty-eight (48) inches above grade, location, condition, and any observational notes (see Exhibit 3).

Each of the identified trees was then mapped using Geographic Information Systems (see Exhibit 3).

Method

The specific tasks performed are as follows:

- identify major vegetation defines as vegetation six (6) inches or greater at forty-eight (48) inches above grade;
- measure the diameter of the individual at forty-eight (48) inches above grade, rounded to the nearest inch;
- determine the individual's health and structural integrity and assign a condition rating;
- note any significant defects, health issues, or other observational notes;
- determine the tree's location;
- acquire an image of the tree (see Exhibit 2);
- determine the Species Value by means of the Western Chapter of the International Society of Arboriculture's *Species Classification and Group Assignment* (2004)
- determine the LU Value of the tree based on the Council of Tree & Landscape Appraiser's (CTLA) Trunk Formula Method;
- prepare a written report that presents findings and submit the report via email as a PDF document.

Appraise value of the tree was determined using a modified-CTLA Trunk Formula Method used by the City of San Mateo (see Exhibit 3 for the prepared Tree Evaluation Schedule), which is a hybrid appraising method derived from the Replacement Cost Method that extends the replacement costs to large diameter individuals. A 25% bonus value is added to Heritage Trees; conversely, there is a 30% reduction for trees located in the allowable building area. The final outcome is the derived LU Value. This method is accepted by the City of San Mateo for valuation purposes. The formula is as follows:

LU Value = Species * Condition * Location / 0.35 * Caliper Inches * Allowable Building Area Condition (0.7 if in allowable building area and 1 if not in allowable building area) * Heritage Status (1.25 if heritage status is yes and 1 if heritage status is no)

Of the data collected in the field, Health (0 - 5; 0 = extremely poor, 5 = excellent) and Structure (0 - 5; 0 = extremely poor, 5 = excellent) were combined to give each tree a Condition rating. The health of the tree is determined by the extent and size of foliage, the appearance of any abnormalities, and the overall health of the trunk and crown. The condition of the tree is determined by the structure of the tree and its general appearance. Health and condition are subjective and species-dependent.

Location of trees was assigned a unique value percent based on *The Guide for Plant Appraisal*.

Species Class was assigned a unique value based on the regional supplement for California, *Species Classification and Group Assignment*, available from the Western Chapter of the International Society of Arboriculture.

Tree Count & Composition

During the site visits, a total of fifty-eight (58) trees were quantified on-site and twenty (20) trees were quantified off-site on the neighboring private property. A total of twenty-one (21) trees were quantified in Central Park.

Of the total 78 individuals observed on the property and northeast neighboring property, there are nineteen (19) species. Of the 78 individuals, fifty-four (54) are considered Heritage Trees per the Heritage Tree Ordinance. Of the 54 Heritage Trees, twenty-three (23) are recommended for removal: four (4) are recommended for removal based on condition and nineteen (19) are recommended for removal based on the design plans. Eighteen (18) non-Heritage Trees are recommended for removal, based on design plans, for a total of forty-one (41) Heritage and non-Heritage Tree removals. No trees are recommended for removal on the neighboring site, and are to be preserved.

Of the 21 individuals observed on the Central Park property, there are eight (8) species. Of the 21 individuals, ten (10) are considered Heritage Trees per the Heritage Tree Ordinance. No trees are recommended for removal on the Central Park property, and are to be preserved.

Suitability for Preservation

Each of the Protected Trees has been assigned a condition percentage from 0% to 100% (100% to 60% = “good;” 50% to 40% = “moderate;” 20% to 0% = “poor”) and is used to determine suitability. This measurement is a way to cumulatively measure the health, structure, location, size, species, and anticipated life span of the individual.

Project Site Trees

Good: The potential for the individual to contribute long-term to the site, having good health, structure, and the most suitable for preservation and retention.

- Trees #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #21, #30, and #31

Moderate: These individuals contribute to the site to a lesser degree than the previous category, and will require frequent care throughout their life span. Retention and preservation may not be suitable depending on the needs of the project.

- Trees #1, #2, #14, #15, #16, #17, #18, #19, #20, #22, #23, #24, #25, #26, #27, #29, #32, #34, #36, #37, #38, #39, #40, #41, #42, #43, #44, #48, #49, #50, #51, #52, #53, #54, #55, #56, and #57

Poor: Limited long-term contribution based on the individual’s declining health and/or structure.

- Trees #28, #33, #35, #45, #46, #47, and #58

Central Park Trees

Good: The potential for the individual to contribute long-term to the site, having good health, structure, and the most suitable for preservation and retention.

- Trees #7, #11, and #17

Moderate: These individuals contribute to the site to a lesser degree than the previous category, and will require frequent care throughout their life span. Retention and preservation may not be suitable depending on the needs of the project.

- Trees #2, #3, #4, #5, #6, #8, #9, #10, #12, #14, #15, #18, #19, #20, and #21

Poor: Limited long-term contribution based on the individual’s declining health and/or structure.

- Trees #1, #13, and #16

Neighboring Site Trees

Good: The potential for the individual to contribute long-term to the site, having good health, structure, and the most suitable for preservation and retention.

- Trees #59 through #78

Specific Construction Impacts

Trenching and digging in the soil near trees can cut roots, and this can damage the tree resulting in tree decline or the tree falling over. This can cause liability and safety concerns. Root pruning is more injurious to old mature trees than it is for younger more vigorous trees. Cutting roots greater than about one inch diameter during trenching and digging can mean problems for the tree. In some cases, roots of one to three inches diameter represent the major structural roots holding the tree upright.

The impact from pruning roots depends on several factors. Damage typically increases with more cuts, bigger cuts, and cuts made closer to the trunk. Root pruning, trenching, and other construction activities close to the trunk result in more injury on shallow, compacted soils or on soils that drain poorly than on well drained soils. This is due to the shallow roots common on sites with shallow soils or high water table. Trees that are leaning are poor candidates for root pruning.

Factors affecting response of trees to root pruning

- **root size:** larger roots may generate few new roots
- **number of cut roots:** more roots cut means more tree stress
- **proximity of cuts to the trunk:** the closer cuts are to the trunk the bigger the impact
- **species:** some species tolerate it better than others
- **tree age:** old trees are more likely to stress and die
- **tree condition:** trees in poor health should not be root pruned
- **tree lean:** leaning trees should not be root pruned
- **soil type and site drainage:** shallow soils mean stay farther from the trunk

Adhering to the following recommended procedures should result in success for the trees in this project:

Project Site Trees & Neighboring Site Trees

The driplines of several trees that are growing on the adjacent northeast property (Trees #59 through 78) are close to the proposed bio-retention basin and drainage installations:

Trees #59 through 66 have massive roots that encroach onto the project property but there is an existing building that is approximately one hundred (100) inches away from the trunk; there will not likely be roots of significance below the building. There is no space between the property line and existing structure to accommodate a bio-retention basin as well as the existing root systems. As a result, we have made the recommendations below for the placement of the bio-retention system.

For Trees #67 through 76, there is no structure impeding the growth of the roots, so there are likely significant roots in the area.

The bio-retention basin and/or drainage is to be cut a minimum of one hundred (100) inches from the property line to accommodate existing trees for Trees #59 through 66, and a minimum of ten (10) times the trunk diameter for Trees #67 through 78.

Exploratory excavation of the bio-retention basin area using an Air-Spade is recommended. Once roots are exposed by this method, they may be evaluated by an arborist. By observing the exposed roots, an action plan can be prepared, which may involve the severing of some roots and while maintaining others.

If the recommended construction guidelines and post construction monitoring and care are followed, the trees should successfully survive.

Only trees adjacent to the property line are addressed in the following specific recommendations:

Tree 19: Preserve – Root loss may result in flagging and desiccated foliage. No structural instability anticipated.

- Root pruning is to occur no closer to any trunk than sixty (60) inches due to potential for substantial root loss and instability if roots are pruned any closer; this distance has been determined as the distance from the trunk to the existing structure. Roots are not likely present below the existing structure;
- Crown clean and clearance prune construction-side of canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Irrigate monthly during construction activities with a final irrigation at the completion of the project;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Trees 59 through 78: Preserve – Directly adjacent to the property line; Root loss may result in flagging and desiccated foliage. In addition, root loss may alter the structural stability of the trees.

- For Trees #59 through 67, root pruning is to occur no closer to any trunk than one hundred (100) inches due to potential for substantial root loss and instability if roots are pruned any closer; this distance has been determined as the distance from the property line to the existing structure. Roots are not likely present below the existing structure;
- For Trees #68 through 78, root pruning is to occur no closer to any trunk than ten (10) times the diameter of the trunk due to the potential for substantial root loss and instability if roots are pruned any closer;
- Crown clean and clearance prune construction-side of canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Irrigate monthly during construction activities with a final irrigation at the completion of the project;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

The following guidelines must also be followed:

- Tree Protective Fencing during the construction period is recommended a minimum of one hundred (100) inches inward on the eastern property line on the 885 South El Camino Real property.
- To help compensate for the root loss, it will be essential to irrigate all trees during the dry months (any month receiving less than 1 inch of rainfall) for a minimum of one (1) year. Irrigate a minimum of ten (10) gallons for each inch of trunk diameter every two (2) weeks. A soaker hose or a drip line is preferred for this purpose. This irrigation must be applied during the trees' recovery period, which may be longer than the construction process.
- If any large roots (2 inches in diameter or larger) are severed, the stub end(s) of the root(s) must be cleanly cut using a sharp saw and sealed using a plastic bag tied on the end. Plastic bags must be removed at the time of backfill.
- Materials must not be stored, stockpiled, dumped, or buried inside the dripline of trees.

- Excavated soil must not be piled or dumped, even temporarily, inside the driplines of protected trees.
- Trees to be preserved may require pruning to clear branches from proposed structures, scaffolding, or necessary equipment and should be performed under the direction of the Project Arborist. Any pruning must be performed or supervised by an arborist certified by the ISA (International Society of Arboriculture) and according to ISA, Western Chapter Standards, 1998.
- The irrigation must not be designed to strike the trunks of trees, because of potential high risk of disease infection.

Central Park Trees

Many of the trees are growing near the property line and the basement garage wall will be approximately four feet (4') from the property line on the 885 South El Camino Real property. There is a space between the property line and garage that is to accommodate a bio-retention basin. The bio-retention basin is to be cut six inches (6") from the property line forty-four inches (44") deep.

Exploratory excavation of the bio-retention basin area using an Air-Spade is recommended. Once roots are exposed by this method, they may be evaluated by an arborist. By observing the exposed roots, an action plan can be prepared, which may involve the severing of some roots and while maintaining others.

Adjustments to preservation recommendations also may be required, specifically Tree #17. It is estimated that approximately 25% of root loss will occur due to excavation on the tree's southwest root-quadrant. The proposed root loss may compromise stability and affect the trees health and structure. Tree #17 will require specific monthly monitoring during the duration of the project to determine specific mitigation efforts. No grading is to occur within ten (10) times the diameter of the trunk on the opposite side of the tree where root cutting is being performed for the excavation of the sub-grade garage.

In addition, Trees #1, #13, and #16 will require monthly monitoring to determine specific mitigation efforts. A single application of slow-release fertilizer and plant growth regulator will be performed at least six (6) months prior to construction activities to encourage new root growth in areas that will not be excavated. All root exploration must be performed with an Airspade and roots are to be pruned roots by hand and in the presence of the Project Arborist or designee. Mulch is to be applied under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities along with monthly irrigation.

If the recommended construction guidelines and post construction monitoring and care are followed, the trees should successfully survive.

Only trees near the property line are addressed in the following specific recommendations:

Tree 1: Monterey Pine – Preserve – 6' from property line; leaning; evidence of pine pitch canker and turpentine beetle; Showing signs of decline; ~40% root loss; Root loss will result in added stress on the tree, which can be successfully mitigated by the following:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Treat for pine pitch canker and turpentine beetle;
- Irrigate monthly during construction activities with a final irrigation at the completion of the project;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 2: Mock Orange - Preserve – 3' from property line; minor root damage; No foreseeable impact to the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 3: Lemonwood - Preserve – 1' from property line; trunk wound; overcrowded; minor root damage; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 4: Lemonwood - Preserve – 1' from property line; trunk wound; overcrowded; minor root damage; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 5: Lemonwood - Preserve – 1' from property line; trunk wound; overcrowded; minor root damage; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 6: Mock Orange - Preserve – 5' from property line; no root damage likely; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

Crown clean canopy prior to construction activities;

- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 7: Bottle Tree - Preserve – 15' from property line; included bark; good specimen; no root damage; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer prior to construction activities;

- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 8: Mock Orange - Preserve – 2' from property line; minor root damage; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 9: Mock Orange - Preserve – 2' from property line; minor root damage; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 10: Mock Orange - Preserve – 25' from property line; no root damage expected; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 11: Southern Live Oak - Preserve – 35' from property line; no root damage expected; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer to construction activities;

- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 12: Mock Orange - Preserve – 3' from property line; minor root damage; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 13: Monterey Pine - Preserve – 8' from property line; slight lean; evidence of pine pitch canker and turpentine beetle; Tree is in decline; ~40% root loss; Root loss will result in added stress on the tree, which can be successfully mitigated by the following:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Treat for pine pitch canker and turpentine beetle;
- Irrigate monthly during construction activities with a final irrigation at the completion of the project;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 14: Holly - Preserve – 3' from property line; minor root damage; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 15: Holly - Preserve – 3' from property line; minor root damage; No foreseeable impact on the tree; however, the following measures will ensure success throughout the construction activities:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 16: Monterey Pine - Preserve – 9' from property line; slight lean; evidence of pine pitch canker and turpentine beetle; Tree is in decline; ~30% root loss; Root loss will result in added stress on the tree, which can be successfully mitigated by the following:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- Treat for pine pitch canker and turpentine beetle;
- Irrigate monthly during construction activities with a final irrigation at the completion of the project;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

Tree 17: Coast Live Oak - Preserve – 0.5' from property line; moderate root damage but less than 30% due to acute angle of excavation; Root loss will result in added stress on the tree, which can be successfully mitigated by the following:

- Crown clean canopy prior to construction activities;
- Prune roots by hand;
- Mulch under dripline to a depth of six (6) inches minimum and maintain mulch throughout construction activities;
- Single application of slow-release fertilizer and plant growth regulator prior to construction activities;
- No grading to occur within ten (10) times the trunk diameter;
- Irrigate monthly during construction activities with a final irrigation at the completion of the project;
- Monitor and Inspect Monthly during construction activities with a final assessment at the completion of the project.

The following guidelines must also be followed:

- Tree Protective Fencing during the construction period is recommended around the southern property line on the 885 South El Camino Real property. The trunks of the trees to be preserved are to be wrapped with brightly colored snow fencing, which will provide a visual reminder to workers that the trees are protected.
- To help compensate for the root loss, it will be essential to irrigate all trees during the dry months (any month receiving less than 1 inch of rainfall) for a minimum of one (1) year. Irrigate a minimum of ten (10) gallons for each inch of trunk diameter every two (2) weeks. A soaker hose or a drip line is preferred for this purpose. This irrigation must be applied during the trees' recovery period, which may be longer than the construction process.
- If any large roots (2 inches in diameter or larger) are severed, the stub end(s) of the root(s) must be cleanly cut using a sharp saw and sealed using a plastic bag tied on the end. Plastic bags must be removed at the time of backfill.
- Materials must not be stored, stockpiled, dumped, or buried inside the dripline of trees.
- Excavated soil must not be piled or dumped, even temporarily, inside the driplines of protected trees.
- Any pruning must be performed or supervised by an arborist certified by the ISA (International Society of Arboriculture) and according to ISA, Western Chapter Standards, 1998.
- The irrigation must not be designed to strike the trunks of trees, because of potential high risk of disease infection.

Construction Guidelines

Any tree located within the footprint of the proposed structures will be removed prior to construction. In the event that construction will impact any other individuals located on this site, the contractor shall abide by the general construction recommendations listed in the following section of this report. The tree protection measures for establishing a Tree Protection Zone (TPZ) are as follows. All work within the dripline or TPZ (whichever is greater) is to be done by hand in the presence of the Project Arborist or designee:

- **Type I Tree Protection:** The fence shall enclose the entire area under the canopy dripline or TPZ (whichever is greater) of the tree(s) to be protected throughout the life of the construction project. In some parking areas, if fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base, if approved.
- **Type II Tree Protection:** For trees situated within a planting strip, the planting strip shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use.
- **Type III Tree Protection:** Trees situated in a tree well or sidewalk planter pit, shall be wrapped with two (2) inches of orange plastic fencing from the ground to the first branch and overlaid with two (2) inch thick wooden slats bound securely (slats shall not be allowed to dig into the bark). During installation of the plastic fencing, caution shall be used to avoid damaging any branches. Major scaffold limbs will also require Type III protection.

Trees can be damaged or killed by a wide variety of construction activities. Some injuries, such as broken branches or torn bark, can be easily avoided. However, the worst damage often remains unseen. Roots are one of the most vital parts of a tree. They are responsible for nutrient and water uptake, energy storage, and anchoring of the plant. Because they are so important, it is critical that you protect roots that lie in the path of construction.

Trees are never the same shape below ground as they are above, so it is difficult to predict the length or location of their roots. An easy rule to follow is that approximately ninety to ninety-five (90-95) percent of a tree's root system is in the top three (3) feet of soil, and more than half is in the top one (1) foot, which extends radially from the trunk to the dripline of the tree. The part of this root system in which construction damage should be avoided is called the Critical Root Zone (CRZ).

Preconstruction Contractor Meeting

Prior to ground break a preconstruction meeting shall be held with the Project Arborist, Project Superintendent and other parties associated with the project that may encounter a

subject tree during the course of the construction to discuss the guidelines included in this report.

Soil Cut or Fill within Root Zones

One of the most important guidelines to be followed when construction occurs near trees is: Do not disturb the ground surface within the CRZ of any tree proposed to be retained. Disturbing the ground includes heavy equipment, over-watering, trenching, excavating, or any other activity, including foot traffic, within the specified area. When adding new fill to any root zone, care should be taken to assure that it is no deeper than six (6) inches. This fill should not be compacted or placed within three (3) feet of any trunk. If compaction is necessary, sixty to seventy (60-70) percent should be the maximum pore space allowed in the soil. In addition, any change in the natural grade should provide drainage *away from* rather than *towards* the tree. It is important to remember that the removal of any soil within the drip line could do serious damage. If soil must be removed, no more than four (4) inches should be allowed. This soil removal work must be done by hand or “AirSpade” (see below). If roots two (2) inches or greater in diameter are encountered, root severance guidelines must be followed.

Root Excavation Guidelines

Ninety (90) percent of all roots are located in the top eighteen (18) inches of soil. Proper excavation of roots in this area is critical to a tree’s successful recovery. The top twenty-four (24) inches of soil should be removed with the assistance of an AirSpade and assisting hand tool, trenching at a pressure of four- to six-hundred (400 to 600) pounds per square inch.

AirSpade

The AirSpade is a handheld soil excavation tool connected to a large air-compressor. The high pressure stream of air is funneled through a small nozzle breaking dense soils apart into small particles. By using air to excavate soil, delicate roots, and hard surfaces are not damaged. An AirSpade will blow soil away from root systems with minimal to no damage.

Expectations of the AirSpade and Root Crown Excavation

Exploratory AirSpading should be conducted prior to the commencement of construction activities to explore the extent of the tree roots. This is done in order to mitigate the impacts of construction. The exploratory AirSpading and exposition of the root system is performed to evaluate the size, structure, and potential health of the root system. Next, it is important to keep the exposed roots wet. This keeps the roots from drying out and dying, which dessication of the roots will damage the entire health of the tree. The roots should

be cleanly cut with a handsaw, and only cut root that are less than two (2) inches in diameter. When possible, the root should be cut back to a lateral (side) root. As soon as severance occurs, cover or wrap the root end with a plastic bag secured with tape or rubber band; backfill as soon as possible. If unsure of the procedures mentioned above, have a professional arborist onsite.

1. Preparing the Proper Soil Moisture – irrigate the soil area where exploration is to occur one to two (1-2) days prior to the AirSpade work being done. This will soften the soil and expedite the process.
2. Clearing the Work Area - The work area around the tree will need to be prepared. Prior to the movement of soil, remove any grass, ivy, shrubs, or flowers from around the base of the tree. This work area is typically one to two (1-2) feet from the base of the tree. Salvage any plant material intended to keep as vegetation will not be replaced once removed.
3. Mitigating Noise - Due to the high pressure air being used and the compressor needed, the process can be quite noisy. However, care can be taken to keep the noise down.
4. Backfilling the Excavated Area - When excavating a root flare or root crown the void created can sometimes be quite deep. If the area cannot be left open then the site should be engineered to accommodate the situation. At times medium to large stones can be used to backfill the area insuring greater air circulation around the base.

Root Severance Guidelines

Any tree under stress before root severance may not survive this procedure. Consult the onsite Certified Arborist before damaging roots. The purpose of this procedure is to minimize the health impact caused by root severance. By following this procedure, recovery time and the impact on tree health can be reduced. This procedure is to be followed whenever damage to any root two (2) inches or greater in diameter occurs:

1. The root must be covered immediately with a board or burlap and kept moist.
2. Before backfilling, the damaged roots should be clean cut with a handsaw or chainsaw. When possible, the root should be cut back to a lateral (side) root. As soon as severance occurs, cover or wrap the root end with a moist plastic bag secured with tape or rubber band. Backfill as soon as possible.

Root Zone Irrigation Before and After Root Damage

Any tree subjected to the impacts of construction should be irrigated prior to construction activities, during construction, and after construction has ended. In addition, any tree which will have or has had damage to its roots should be irrigated. Three (3) weeks prior to excavation or grading place an adequate irrigation hose at the drip line. Water the CRZ one (1) time per week for six to eight (6-8) hours or as necessary to wet the soil to a depth of two (2) feet. If damage has already occurred, place the irrigation hose in an area where roots have not been disturbed and also place a hose over the area that was damaged. Continue this irrigation practice for one (1) month and up to eight (8) months, depending on the severity of the damage and the recommendation of the Project Arborist.

Mulch

Any tree subjected to the impacts of construction should be mulched prior to construction activities, during construction, and after construction has ended. Apply a layer of wood chips at least six (6) inches thick over areas that will be used for traffic or materials storage during construction. If these areas become part of the new landscape, the wood chips will prevent the soil from becoming too compacted and provides a layer of organic material. At no time does mulching constitute adequate protect of the roots for large equipment to enter the CRZ.

Tree Protection Fences

Trees are often killed, injured or stressed is a direct result of the construction process. A TPZ is to be installed with the parameter of either ten (10) times the diameter of the trunk at four and half (4.5) feet above natural grade or ten (10) feet, whichever is greater. To protect trees, install a six (6) foot high chain-link fence with post driven into the ground every ten to twelve (10-12) feet. The fencing should be located at the TPZ perimeter and not disturbed for any reason. Warning Signage indicating, "Tree Protection Zone: Keep Out," or similar wording at the direction of the Project Arborist, shall be placed in two (2) visible locations on opposite sides of the tree (see Figure 2 of Exhibit 1). All fencing and protection should be in place before any construction begins and left until all landscape grading and trenching is complete. Avoid placing of underground utilities within the drip line of any tree. When utilities are run through the root zone of a tree, horizontal coring should be used instead of trenching. If it is not possible to use horizontal coring, the onsite certified arborist should be contacted before trenching begins.

Recommended Services

Any tree subjected to the impacts of construction activities should be pruned prior to the commencement of construction. Pruning can be done during the tenure of construction so long as it is deemed necessary by the Project Arborist. All services recommended in this

report should be done by a Certified Arborist or Certified Tree Worker in accordance with the ANSI-A300 standards. All pruning necessary to provide clearance during construction should be performed by a Certified Arborist or Tree Worker and not undertaken by construction personnel. Accidental damage to trees should receive immediate corrective attention. Pruning shall cease after construction has stopped and is to occur only as needed for proper maintenance.

Any tree subjected to the impacts of construction activities should be fertilized prior to the commencement of construction. Where deep root fertilization has been recommended, a solution of four (4) pounds of Doggett's 32-7-7 per one hundred (100) gallons of water should be used. This should be injected at the rate of ten (10) gallons per inch of trunk diameter at one- to two-hundred (200-300) pounds of pressure. Unless otherwise stated, fertilization should take place between May and September. Mycorrhizal inoculum: Trees are to have roots inoculated with endo/ectomycorrhizal fungal inoculum. Fertilization shall occur prior to, during, and after construction under the direction of the Project Arborist.

Design Guidelines

- Avoid placement of fence anchors in close proximity to tree trunks.
- Do not install paving or build structures in close proximity to trees with invasive or surface oriented root systems (unless existing paving or building structures were present prior to construction).
- Where structure height will require removal of large branches, do not plan construction within tree drip line.
- Do not place chimney ventilation within the tree's canopy area.
- Assure that roof drainage is directed away from trees.
- For trees to be installed, anticipate the tree's height and spread at maturity. Do not place structures so as to limit the normal form of the tree as it matures.
- Contact the Project Arborist to review the landscape design before it is implemented.
- Do not install impervious materials such as roads and walkways within the CRZ.
- When designing walkways within the drip line, use pervious materials such as interlocking paving and geogrid matrix wherever possible.

- Make sure that the tree requirements are fully recognized during design, construction installation and maintenance of landscape.

Construction Guidelines

- Do not use tree trunks as a winch support in demolition or for moving and lifting large loads.
- Do not dump concrete residue, chemicals, solvents, etc., on site.
- Do not attempt the demolition of trees with grading equipment when trees that are to be preserved are in the vicinity. Trees uprooted by pushing or pulling may damage branches or root systems of adjacent trees. All trees and stumps should be removed by a qualified company.
- Grade and trench lines radial to trees rather than tangential. If roots are encountered while trenching, follow root severance guidelines.
- If soil compaction has occurred near or within the CRZ by operating of heavy equipment or other operations, aerate (fracture) soil as quickly as practical.
- If demolition of existing roads, structures, etc. is near any tree to be preserved, a small soft-rubber tire loader should be used. Any work within six (6) feet of any trunk should be performed by hand.

Maintenance Guidelines

- All recommended services should be performed before construction ends. Pruning shall cease after construction and only be performed as directed by a Certified Arborist for maintenance purposes.
- Continuance of irrigation for one to eight (1-8) months, or as directed by a Certified Arborist. Gradually reduce irrigation to avoid overwatering.
- Provide the new property owners with information they will require for proper maintenance of trees on the property.

Schedule and Coordination

Trees should be monitored by the Project Arborist during construction at the following intervals:

- Before construction begins, the Project Arborist is to use this preservation plan to implement tree protections with the assigned contractors for all work onsite.
- During the Pre-construction meeting.
- During the Rough Grading or Trenching.
- For each Monthly Tree Activity Report Inspection or the interval deemed necessary by the local authorities.
- Any Special Activity within any TPZ or CRZ.
- Any other time deemed necessary by the Project Arborist.

Concluding Remarks

This report is a guideline for the proper maintenance of tree during construction activities. The following activities need to occur, as noted above:

- Preconstruction: root exploration; root pruning; foliar pruning; mulch; irrigation; fertilization; tree protection measures.
- During construction: tree protection measures; mulch; irrigation; fertilization; and pruning as needed.
- Post-construction: mulch; irrigation; and yearly maintenance pruning as needed.

While trees vary in their tolerance to changed conditions, disruption in any form of the environment to which the trees have grown accustomed, may result in adverse reaction. No assurance can be offered that if all of the recommendations and precautionary measures are accepted and followed, the desired results will be achieved. Demolition and construction activity among and near trees is inherently contrary to tree welfare. The objective of these guidelines is to provide information useful in mitigating undesirable consequences resulting from uninformed or careless acts. If strict adherence to all recommendations is performed, we believe the trees will successfully survive construction of the project.

Assumptions and Limiting Conditions

While trees vary in their tolerance to changed conditions, disruption in any form of the environment to which the trees have grown accustomed may result in adverse reaction. Human activity among and near trees is inherently contrary to tree welfare and there are inherent risks associated. The objective of this report is to provide information useful in mitigating undesirable consequences resulting from failure of any part of a tree.

The following are limitations to this report:

- All information presented herein covers only the trees examined at the area of inspection, and reflects the condition observed of said tree at the time of inspection.
- Observations were performed visually without probing, dissecting, coring, or excavation, unless noted above, and in no way shall the observer be held responsible for any defects that could have only been discovered by performing said services in specific area(s) where a defect was located.
- No guarantee or warranty is made, expressed or implied, that defects of the trees inspected may not arise in the future.
- No assurance can be offered that if the recommendation and precautionary measure are accepted and followed, that the desired result may be attained.
- No responsibility is assumed for the methods used by any person or company executing the recommendations provided in this report.
- The information provided herein represents an opinion, and in no way is the reporting of a specified finding, conclusion, or value based on the retainer.
- This report is proprietary to Arborwell, and may not be reproduced in whole or part without written consent. This report has been prepared exclusively for use of the parties to which it has been submitted.
- Should any part of this report be altered, damaged, corrupted, or lost the entire evaluation shall be invalid.

Exhibit 1 – Figures and Tables



Figure 1: an aerial image depicting the of the 885 El Camino Real & 15-35 9th Street properties (top image; shaded red) and the area of the Central Park (bottom image; shaded red).



Figure 2: an example of the appropriate signage to use in conjunction with Tree Protection Fencing.

Table 1: The species and their common names found onsite including individual counts for the project site.

Species	Common Name	Count
<i>Acacia melanoxylon</i>	Black Acacia	9
<i>Callistemon citrinus</i>	Lemon Bottlebrush	1
<i>Calocedrus decurrens</i>	Incense Cedar	4
<i>Crataegus spp.</i>	Hawthorn	1
<i>Dracaena draco</i>	Dragon Tree	3
<i>Eriobotrya deflexa</i>	Bronze Loquat	1
<i>Eugenia uniflora</i>	Sirinam Cherry	2
<i>Ligustrum lucidum</i>	Glossy Privet	1
<i>Magnolia grandiflora</i>	Southern Magnolia	1
<i>Olea europa</i>	Olive	1
<i>Pinus radiata</i>	Monterey Pine	2
<i>Pistacia chinensis</i>	Chinese Pistache	2
<i>Pittosporum rhombifolium</i>	Mock Orange	1
<i>Pittosporum undulatum</i>	Pittosporum	2
<i>Prunus laurocerasus</i>	Cherry Laurel	1
<i>Quercus agrifolia</i>	Coast Live Oak	14
<i>Quercus lobata</i>	Valley Oak	2
<i>Sequoia sempervirens</i>	Coast Redwood	27
<i>Umbellularia californica</i>	California Bay Laurel	3
Sum Total		78

Table 2: The species and their common names found onsite including individual counts for Central Park.

Species	Common Name	Count
<i>Brachychiton populneus</i>	Bottle Tree	1
<i>Ilex spp.</i>	Holly	2
<i>Ligustrum lucidum</i>	Glossy Privet	1
<i>Pinus radiata</i>	Monterey Pine	6
<i>Pittosporum eugenioides</i>	Lemonwood	3
<i>Pittosporum undulatum</i>	Mock Orange	6
<i>Quercus agrifolia</i>	Coast Live Oak	1
<i>Quercus virginiana</i>	Southern Live Oak	1
Sum Total		21

Table 3: The percentage of species relative to the total population for the project site.

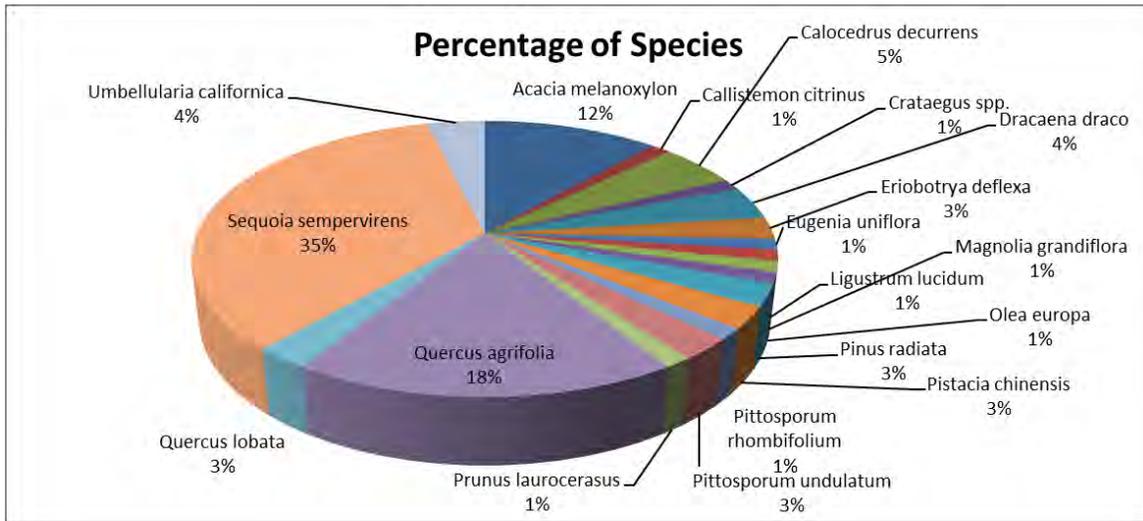


Table 4: The percentage of species relative to the total population for Central Park.

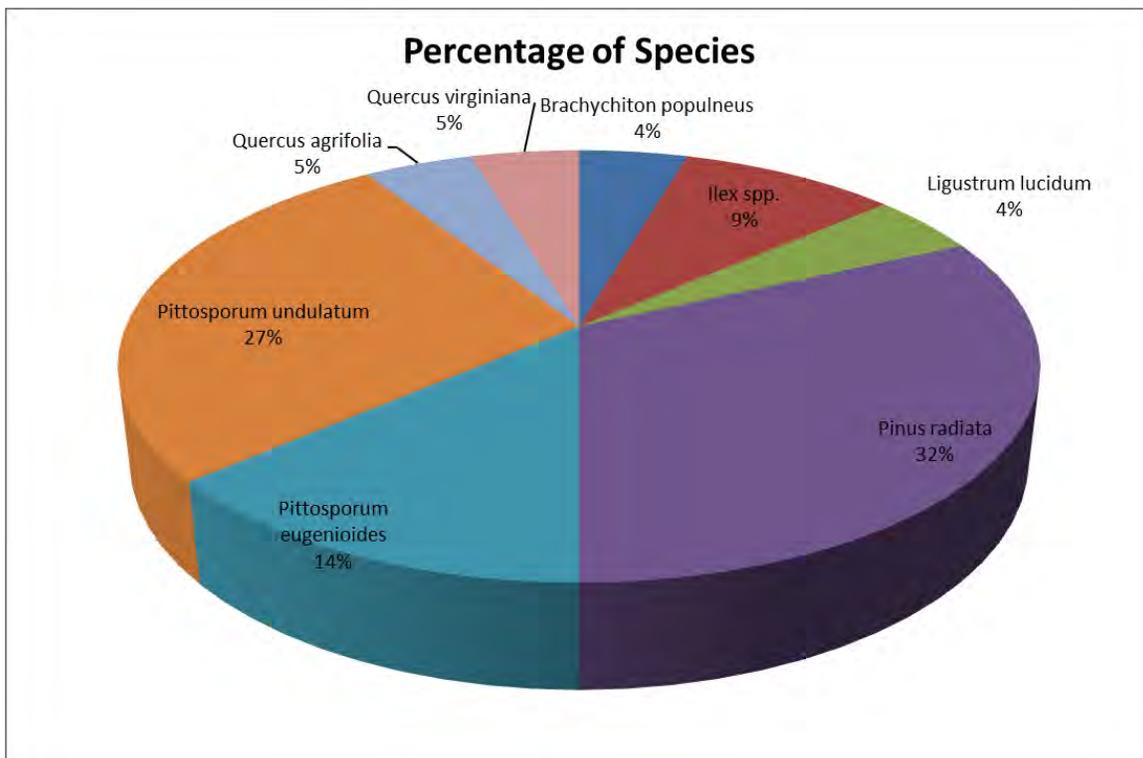


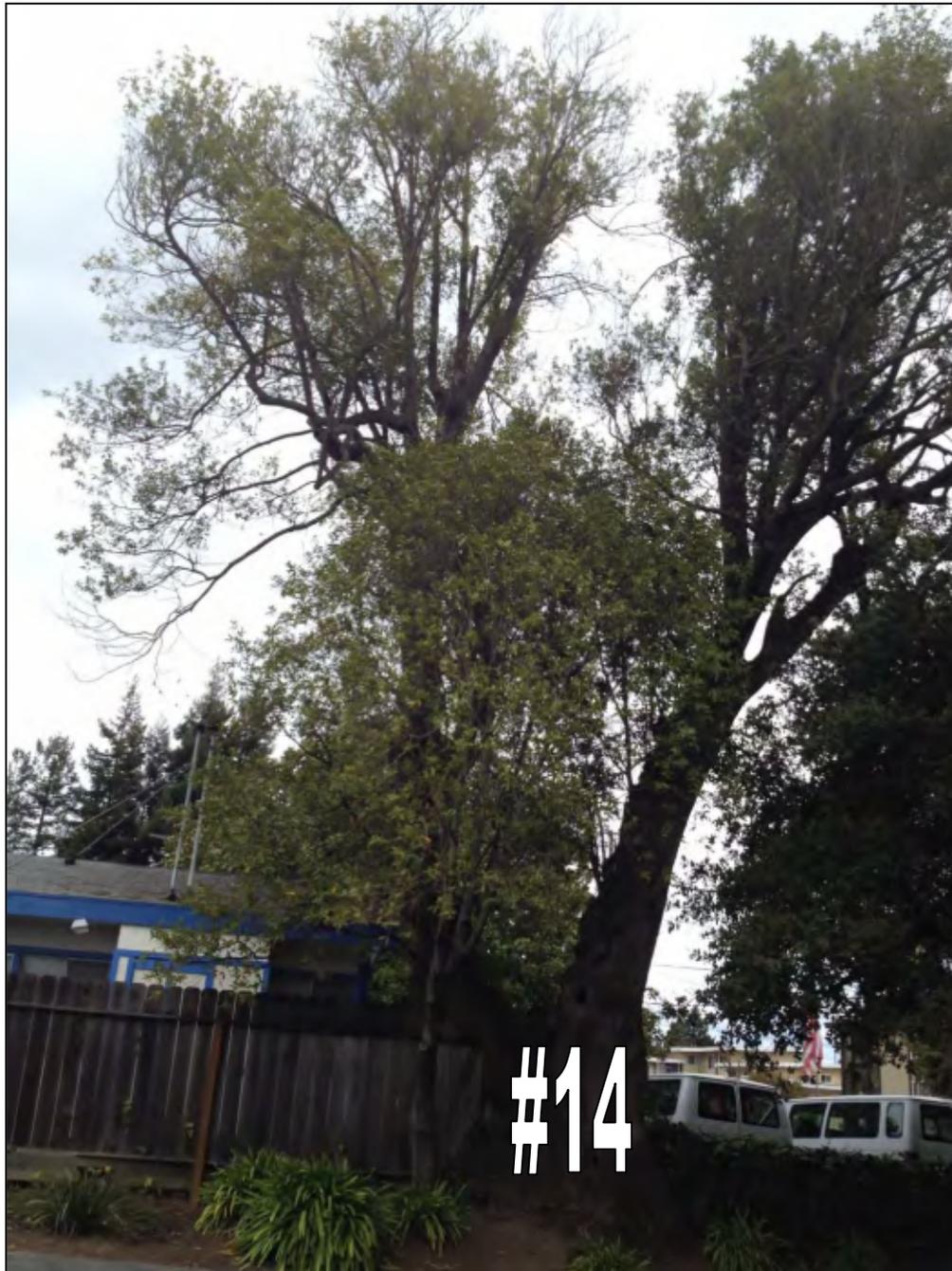
Exhibit 2 – Additional Figures

Project Site Trees







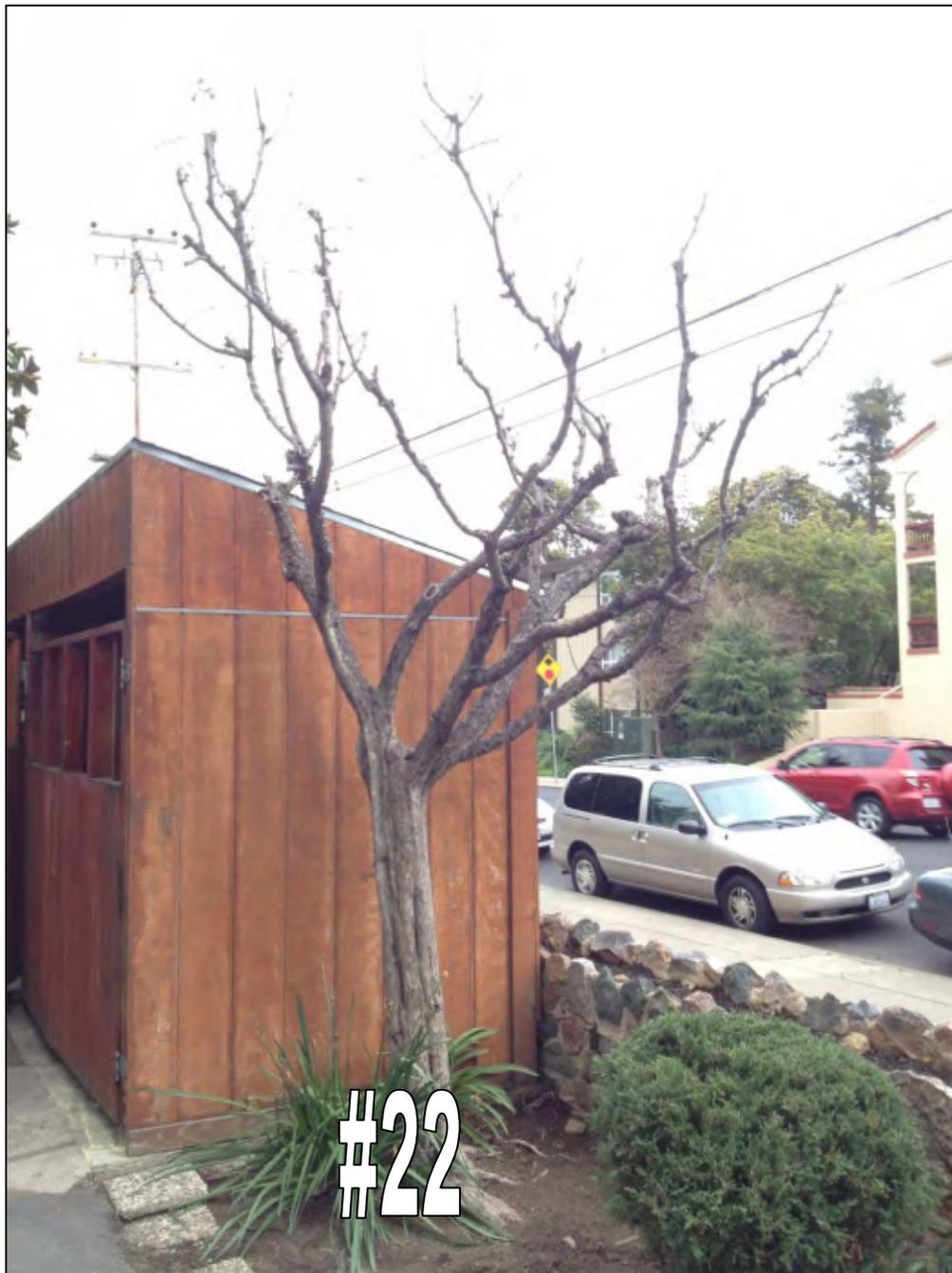














#24-#31











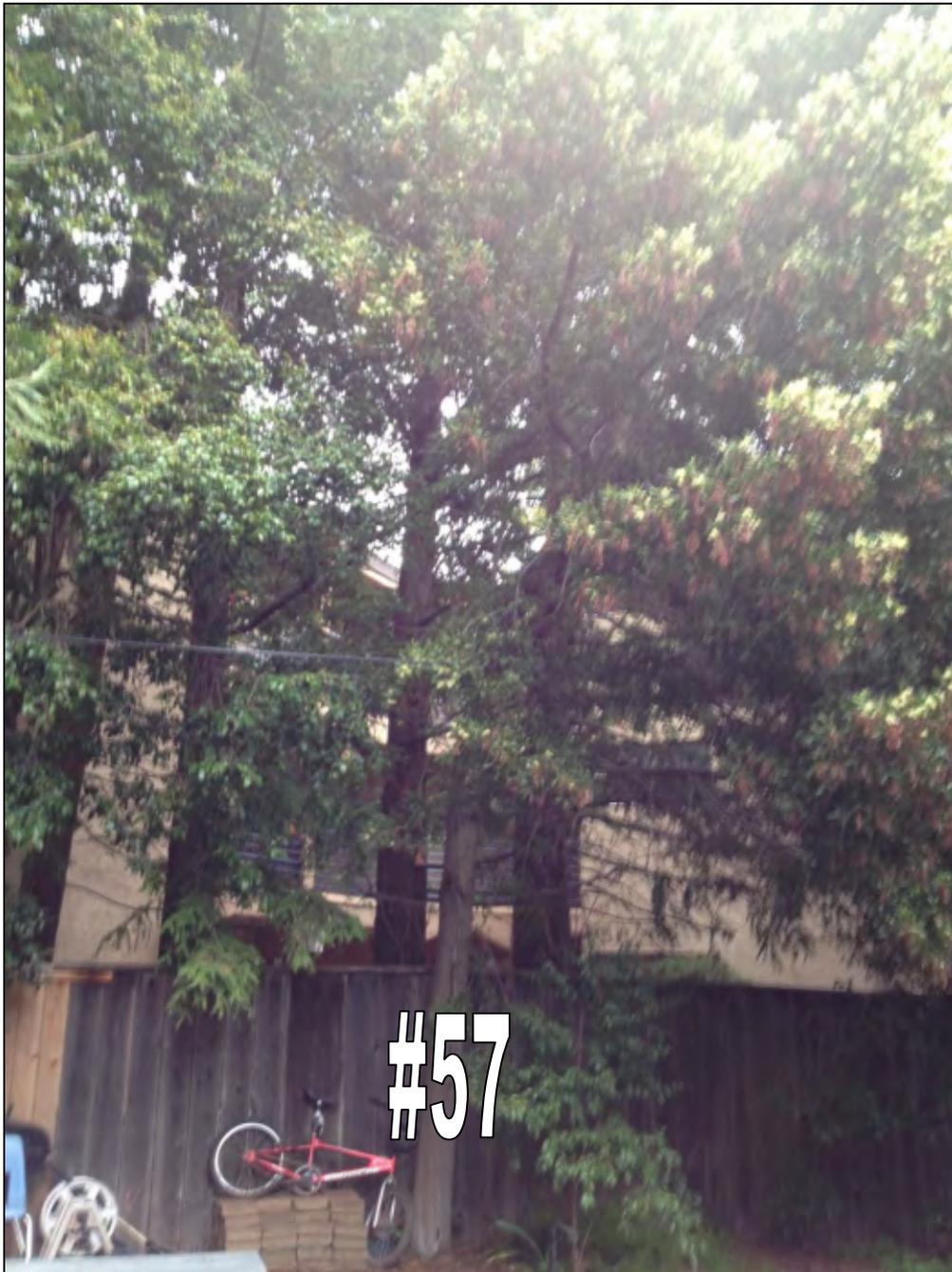


#38-#55



















Central Park Trees



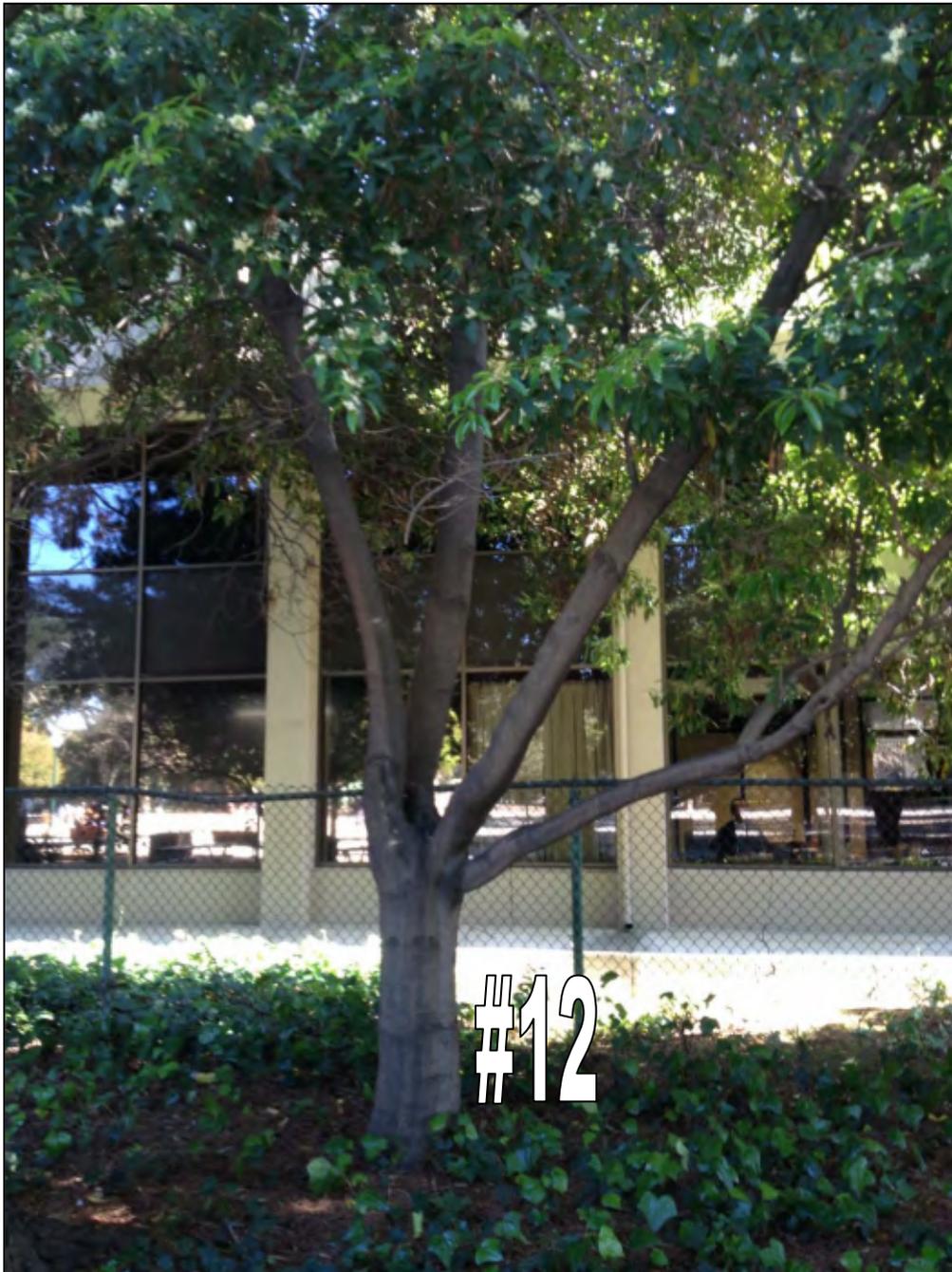










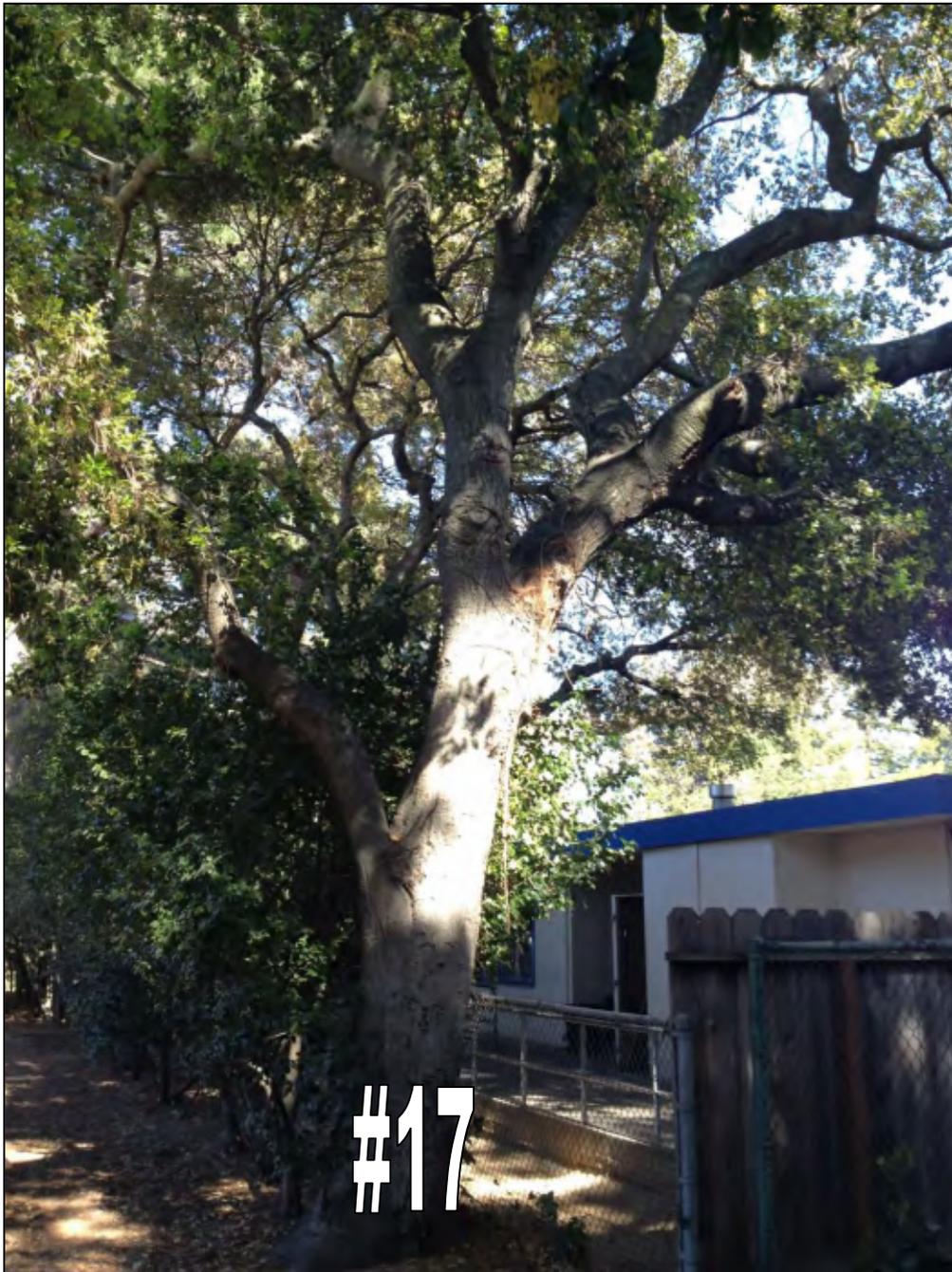






















Samuel Oakley
885 El Camino Real & 15-35 9th Street and Central Park Tree Assessment
1/23/2015



Exhibit 3 – Tree Evaluation Schedule

Tree Evaluation Schedule for Pacific Western Bank

885 Elcamino Real & 15-35 9th Street, San Mateo, CA

Removal Trees of 6" Caliper or Greater

FORMULA FOR LU VALUE:

$$\text{LU Value} = \frac{\text{Species Value \%} \times \text{Condition Value \%} \times \text{Location Value \%} \times 0.35 \times \text{Caliper inches} \times \text{.70 if in allowable bldg. area} \times \text{1.25 if heritage tree}}{1}$$

Ref.	Location	Species Name	Common Name	Fate: Preserved/ Removed	Species Value %	Condition Value %	Location Value %	0.35	Caliper inches	.70 if in allowable bldg. area	1.25 if heritage tree	LU Value	Note
1	885 El Camino Real	<i>Dracaena draco</i>	Dragon Tree	Remove	50%	40%	60%	0.35	31	1	1.25	13.29	Overcrowded; Remove based on design
2	885 El Camino Real	<i>Dracaena draco</i>	Dragon Tree	Remove	50%	40%	60%	0.35	12	1	1.25	5.14	Overcrowded; Remove based on design
3	885 El Camino Real	<i>Quercus lobata</i>	Valley Oak	Preserve	90%	60%	80%	0.35	18	1	1.25	27.77	Leaning
4	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Remove	90%	60%	80%	0.35	35	0.7	1.25	37.80	Waterstressed; Remove based on design
5	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Remove	90%	60%	80%	0.35	23	0.7	1.25	24.84	Waterstressed; Remove based on design
6	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	80%	0.35	16	0.7	1.25	17.28	Waterstressed
7	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	80%	0.35	16	0.7	1.25	17.28	Waterstressed
8	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	80%	0.35	25	0.7	1.25	27.00	Waterstressed
9	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Remove	90%	60%	80%	0.35	24	0.7	1.25	25.92	Waterstressed; Remove based on design
10	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	80%	0.35	28	0.7	1.25	30.24	Waterstressed
11	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	80%	0.35	16	0.7	1.25	17.28	Waterstressed
12	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	80%	0.35	16	0.7	1.25	17.28	Waterstressed
13	885 El Camino Real	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	80%	0.35	25	0.7	1.25	27.00	Waterstressed
14	885 El Camino Real	<i>Umbellularia californica</i>	California Bay Laurel	Remove	70%	40%	100%	0.35	92	1	1.25	92.00	Poor Structure; Decay; Fungal fruiting Body; Remove based on design
15	885 El Camino Real	<i>Quercus agrifolia</i>	Coast Live Oak	Remove	90%	40%	70%	0.35	14	1	1.25	12.60	Differed Maintenance; Poor Structure; Remove based on design
16	885 El Camino Real	<i>Quercus agrifolia</i>	Coast Live Oak	Remove	90%	40%	70%	0.35	14	1	1.25	12.60	Differed Maintenance; Poor Structure; Remove based on design
17	885 El Camino Real	<i>Quercus agrifolia</i>	Coast Live Oak	Remove	90%	40%	70%	0.35	16	1	1.25	14.40	Differed Maintenance; Poor Structure; Remove based on design
18	885 El Camino Real	<i>Acacia melanoxylon</i>	Black Acacia	Remove	30%	40%	70%	0.35	14	1	1	3.36	Topped; Remove based on design
19	15 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Preserve	90%	40%	80%	0.35	20	1	1.25	20.57	Included Bark; Poor Structure; Declining Foliage
20	15 9th Street	<i>Quercus lobata</i>	Valley Oak	Remove	90%	40%	100%	0.35	46	1	1.25	59.14	Visible Decay; Remove based on design
21	15 9th Street	<i>Magnolia grandiflora</i>	Southern Magnolia	Remove	90%	60%	100%	0.35	28	0.7	1.25	37.80	Poor Structure; Remove based on design
22	15 9th Street	<i>Crataegus spp.</i>	Hawthorn	Remove	50%	40%	60%	0.35	7	0.7	1	1.68	Pollarded; Remove based on design
23	25 9th Street	<i>Pittosporum rhombifolium</i>	Mock Orange	Remove	30%	40%	60%	0.35	38	0.7	1.25	6.84	Visible Decay; Poor Structure; Multiple Stems; Remove based on design
24	25 9th Street	<i>Dracaena draco</i>	Dragon Tree	Remove	50%	40%	60%	0.35	12	1	1	4.11	Overcrowded; Multiple Stems; Remove based on design
25	25 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Preserve	90%	40%	60%	0.35	10	1	1.25	7.71	Overcrowded
26	25 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Preserve	90%	40%	60%	0.35	6	1	1	3.70	Overcrowded
27	25 9th Street	<i>Eriobotrya deflexa</i>	Bronze Loquat	Remove	70%	40%	60%	0.35	15	1	1	7.20	Overcrowded; Multiple Stems; Remove based on design
28	25 9th Street	<i>Olea europaea</i>	Olive	Remove	3%	70%	60%	0.35	9	1	1	0.32	Poor structure; Multiple Stems; Remove based on design
29	25 9th Street	<i>Pinus radiata</i>	Monterey Pine	Remove	30%	40%	80%	0.35	30	1	1.25	10.29	Leaning; Remove based on design
30	25 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Preserve	90%	60%	60%	0.35	10	1	1.25	11.57	Overcrowded; Choaked with Ivy; Deadwood
31	25 9th Street	<i>Callistemon citrinus</i>	Lemon Bottlebrush	Remove	50%	60%	80%	0.35	14	0.7	1	6.72	Multiple Stems; Remove based on design
32	35 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Remove	90%	40%	60%	0.35	9	0.7	1	3.89	Poor Structure; Overcrowded; Multiple Stems; Remove based on design
33	35 9th Street	<i>Pittosporum undulatum</i>	Pittosporum	Remove	70%	20%	60%	0.35	31	0.7	1.25	6.51	Poor Structure; Overcrowded; Multiple Stems; Remove based on condition
34	35 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Remove	90%	40%	100%	0.35	29	0.7	1.25	26.10	Codominant; Multiple Stems; Remove based on design
35	35 9th Street	<i>Ligustrum lucidum</i>	Glossy Privet	Remove	30%	20%	40%	0.35	8	0.7	1	0.38	Codominant; Topped; Choaked with Ivy; Remove based on design
36	35 9th Street	<i>Prunus laurocerasus</i>	Cherry Laurel	Remove	50%	40%	40%	0.35	13	0.7	1	2.08	Poor Structure; Remove based on design
37	35 9th Street	<i>Eugenia uniflora</i>	Sirinam Cherry	Remove	70%	40%	40%	0.35	10	0.7	1	2.24	Poor Structure; Remove based on design
38	35 9th Street	<i>Calocedrus decurrens</i>	Incense Cedar	Preserve	70%	40%	40%	0.35	28	0.7	1.25	7.84	
39	35 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Remove	90%	40%	40%	0.35	9	0.7	1	2.59	Topped; Ivy; Poor Structure; Remove based on design
40	35 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Remove	90%	40%	40%	0.35	7	0.7	1	2.02	Topped; Ivy; Poor Structure; Remove based on design
41	35 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Preserve	90%	40%	40%	0.35	12	0.7	1.25	4.32	Included Bark; Poor Structure; Ivy
42	35 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Preserve	90%	40%	40%	0.35	7	1	1	2.88	Leaning
43	35 9th Street	<i>Umbellularia californica</i>	California Bay Laurel	Remove	70%	40%	40%	0.35	31	1	1.25	12.40	Poor Structure; Leaning; Included Wire; Multiple Stems; Remove based on design
44	35 9th Street	<i>Calocedrus decurrens</i>	Incense Cedar	Preserve	70%	40%	40%	0.35	21	1	1.25	8.40	Declining
45	35 9th Street	<i>Acacia melanoxylon</i>	Black Acacia	Remove	30%	20%	40%	0.35	10	1	1	0.69	Remove based on design
46	35 9th Street	<i>Umbellularia californica</i>	California Bay Laurel	Remove	70%	20%	40%	0.35	13	1	1.25	2.60	Poor structure; Multiple Stems; Remove based on condition
47	35 9th Street	<i>Calocedrus decurrens</i>	Incense Cedar	Remove	70%	20%	40%	0.35	17	0.7	1.25	2.38	Deadwood; Overcrowded; Remove based on design
48	35 9th Street	<i>Acacia melanoxylon</i>	Black Acacia	Remove	30%	40%	40%	0.35	15	0.7	1	1.44	Poor Structure; Overcrowded; Remove based on design
49	35 9th Street	<i>Acacia melanoxylon</i>	Black Acacia	Remove	30%	40%	40%	0.35	9	1	1	1.23	Poor Structure; Overcrowded; Remove based on design
50	35 9th Street	<i>Acacia melanoxylon</i>	Black Acacia	Remove	30%	40%	40%	0.35	39	1	1.25	6.69	Poor Structure; Overcrowded; Multiple Stems; Remove based on design
51	35 9th Street	<i>Acacia melanoxylon</i>	Black Acacia	Remove	30%	40%	40%	0.35	16	1	1.25	2.74	Poor Structure; Overcrowded; Multiple Stems; Remove based on design
52	35 9th Street	<i>Acacia melanoxylon</i>	Black Acacia	Remove	30%	40%	40%	0.35	26	1	1.25	4.46	Poor Structure; Overcrowded; Multiple Stems; Remove based on condition
53	35 9th Street	<i>Pittosporum undulatum</i>	Pittosporum	Remove	70%	40%	40%	0.35	6	0.7	1	1.34	Poor Structure; Overcrowded; Multiple Stems; Remove based on design
54	35 9th Street	<i>Acacia melanoxylon</i>	Black Acacia	Remove	30%	40%	40%	0.35	10	0.7	1	0.96	Poor Structure; Overcrowded; Remove based on design
55	35 9th Street	<i>Calocedrus decurrens</i>	Incense Cedar	Preserve	70%	40%	40%	0.35	27	0.7	1.25	7.56	Poor Structure; Overcrowded
56	35 9th Street	<i>Quercus agrifolia</i>	Coast Live Oak	Remove	90%	40%	40%	0.35	12	0.7	1.25	4.32	Poor Structure; Overcrowded; Multiple Stems; Remove based on design
57	35 9th Street	<i>Acacia melanoxylon</i>	Black Acacia	Remove	30%	40%	40%	0.35	10	1	1	1.37	Poor Structure; Overcrowded; Remove based on design
58	35 9th Street	<i>Pinus radiata</i>	Monterey Pine	Remove	30%	20%	80%	0.35	52	1	1.25	8.91	Shared with Neighbor; Poor Structure; Pine Pitch Canker; Remove based on condition
59	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	42	1	1.25	40.50	Neighboring Property
60	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	40%	50%	0.35	18	1	1.25	11.57	Neighboring Property; Thinning Canopy Density
61	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	24	1	1.25	23.14	Neighboring Property
62	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	36	1	1.25	34.71	Neighboring Property
63	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	12	1	1.25	11.57	Neighboring Property
64	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	26	1	1.25	25.07	Neighboring Property
65	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	8	1	1	6.17	Neighboring Property
66	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	24	1	1.25	23.14	Neighboring Property
67	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	20	1	1.25	19.29	Neighboring Property
68	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	16	1	1.25	15.43	Neighboring Property
69	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	20	1	1.25	19.29	Neighboring Property
70	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	14	1	1.25	13.50	Neighboring Property
71	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	13	1	1.25	12.54	Neighboring Property
72	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	12	1	1.25	11.57	Neighboring Property
73	35 9th Street	<i>Eugenia uniflora</i>	Surinam Cherry	Preserve	70%	40%	50%	0.35	9	1	1	3.60	Neighboring Property; Overcrowded
74	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	60%	50%	0.35	10	1	1.25	9.64	Neighboring Property
75	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	40%	50%	0.35	30	1	1.25	19.29	Neighboring Property; Thinning Canopy Density
76	35 9th Street	<i>Sequoia sempervirens</i>	Coast Redwood	Preserve	90%	40%	50%	0.35	18	1	1.25	11.57	Neighboring Property; Thinning Canopy Density
77	35 9th Street	<i>Pistacia chinensis</i>	Chinese Pistache	Preserve	70%	50%	80%	0.35	6	1	1	4.80	Neighboring Property; Overcrowded
78	35 9th Street	<i>Pistacia chinensis</i>	Chinese Pistache	Preserve	70%	60%	60%	0.35	7	1	1	5.04	Neighboring Property

SUM TOTAL LU VALUE OF TREES TO BE REMOVED:

473.40

Exhibit 2 - Tree Evaluation Schedule for Central Park

Central Park Adjacency

Trees of 6" Caliper or Greater

FORMULA FOR LU VALUE:

$$\frac{\text{Species Value \%} \times \text{Condition Value \%} \times \text{Location Value \%}}{0.35} \times \text{Caliper inches} \times \begin{cases} .70 & \text{if in allowable bldg. area} \\ 1.25 & \text{if heritage tree} \end{cases} = \text{Result}$$

Ref.	Location	Species Name	Common Name	Fate: Preserved/Removed	Species Value %	Condition Value %	Location Value %	0.35	Result	Caliper inches	.70 if in allowable bldg. area	1.25 if heritage tree	Result =	LU Value	Note
1	Central Park	<i>Pinus radiata</i>	Monterey Pine	Preserve	30%	50%	70%	0.35	0.300	37	1	1.25	46.25	13.88	6' from property line; leaning; evidence of pine pitch canker and turpentine beetle
2	Central Park	<i>Pittosporum undulatum</i>	Mock Orange	Preserve	50%	50%	60%	0.35	0.429	13	1	1	13	5.57	3' from property line
3	Central Park	<i>Pittosporum eugenioides</i>	Lemonwood Pittosporum	Preserve	50%	20%	60%	0.35	0.171	7	1	1	7	1.20	1' from property line; trunk wound; overcrowded
4	Central Park	<i>Pittosporum eugenioides</i>	Lemonwood Pittosporum	Preserve	50%	20%	60%	0.35	0.171	12	1	1	12	2.06	1' from property line; trunk wound; overcrowded
5	Central Park	<i>Pittosporum eugenioides</i>	Lemonwood Pittosporum	Preserve	70%	20%	60%	0.35	0.240	23	1	1.25	28.75	6.90	1' from property line; trunk wound; overcrowded
6	Central Park	<i>Pittosporum undulatum</i>	Mock Orange	Preserve	70%	30%	60%	0.35	0.360	22	1	1.25	27.5	9.90	5' from property line; codominant
7	Central Park	<i>Brachychiton populneus</i>	Bottle Tree	Preserve	50%	70%	80%	0.35	0.800	12	1	1	12	9.60	15' from property line; included bark; good specimen
8	Central Park	<i>Pittosporum undulatum</i>	Mock Orange	Preserve	70%	20%	60%	0.35	0.240	11	1	1	11	2.64	2' from property line; trunk wound on codominant laterals; leaning
9	Central Park	<i>Pittosporum undulatum</i>	Mock Orange	Preserve	70%	20%	60%	0.35	0.240	20	1	1.25	25	6.00	2' from property line; overcrowded; leaning
10	Central Park	<i>Pittosporum undulatum</i>	Mock Orange	Preserve	70%	20%	60%	0.35	0.240	8	1	1	8	1.92	25' from property line; weak branch attachment
11	Central Park	<i>Quercus virginiana</i>	Southern Live Oak	Preserve	90%	90%	80%	0.35	1.851	7	1	1	7	12.96	35' from property line; good specimen
12	Central Park	<i>Pittosporum undulatum</i>	Mock Orange	Preserve	70%	20%	60%	0.35	0.240	14	1	1	14	3.36	3' from property line;
13	Central Park	<i>Pinus radiata</i>	Monterey Pine	Preserve	30%	50%	70%	0.35	0.300	35	1	1.25	43.75	13.13	8' from property line; slight lean; evidence of pine pitch canker and turpentine beetle
14	Central Park	<i>Ilex spp.</i>	Holly	Preserve	50%	40%	60%	0.35	0.343	8	1	1	8	2.74	3' from property line
15	Central Park	<i>Ilex spp.</i>	Holly	Preserve	50%	40%	60%	0.35	0.343	6	1	1	6	2.06	3' from property line
16	Central Park	<i>Pinus radiata</i>	Monterey Pine	Preserve	30%	50%	70%	0.35	0.300	41	1	1.25	51.25	15.38	12' from property line; slight lean; evidence of pine pitch canker and turpentine beetle
17	Central Park	<i>Quercus agrifolia</i>	Coast Live Oak	Preserve	90%	80%	100%	0.35	2.057	27	1	1.25	33.75	69.43	0.5' from property line
18	Central Park	<i>Pinus radiata</i>	Monterey Pine	Preserve	30%	50%	70%	0.35	0.300	36	1	1.25	45	13.50	4' from property line; evidence of pine pitch canker and turpentine beetle
19	Central Park	<i>Ligustrum lucidum</i>	Glossy Privet	Preserve	30%	30%	60%	0.35	0.154	9	1	1	9	1.39	0.5' from property line
20	Central Park	<i>Pinus radiata</i>	Monterey Pine	Preserve	30%	50%	70%	0.35	0.300	33	1	1.25	41.25	12.38	7' from property line; evidence of pine pitch canker and turpentine beetle
21	Central Park	<i>Pinus radiata</i>	Monterey Pine	Preserve	30%	50%	70%	0.35	0.300	31	1	1.25	38.75	11.63	30' from property line; leaning; evidence of pine pitch canker and turpentine beetle

SUM TOTAL LU VALUE OF TREES TO BE REMOVED:

0.00

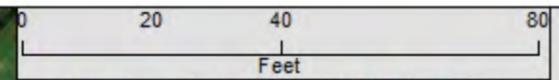
* locational measurements are approximate

Samuel Oakley
885 El Camino Real & 15-35 9th Street and Central Park Tree Assessment
1/23/2015



Exhibit 4 – Inventory Maps

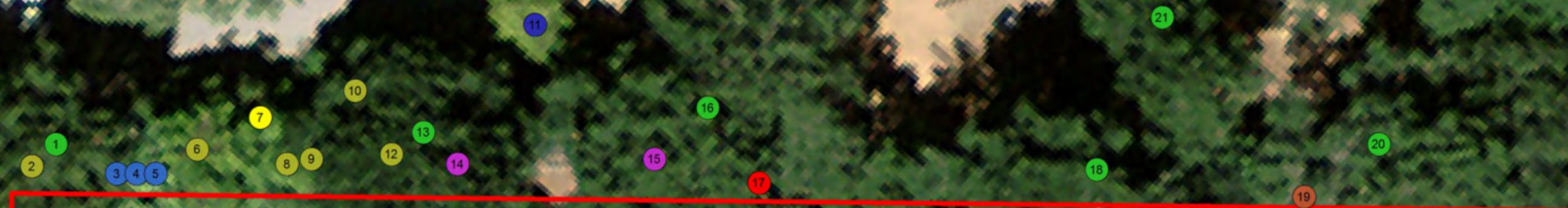
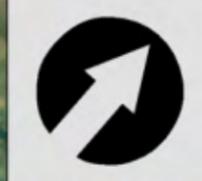
Pacific Western Bank Property
 885 S. El Camino Real
 15-35 9th Street
 San Mateo, California
 Tree Inventory



Species Name

- | | |
|--|---|
| ● Acacia melanoxylon | ● Pinus radiata |
| ● Callistemon citrinus | ● Pistacia chinensis |
| ● Calocedrus decurrens | ● Pittosporum rhombifolium |
| ● Crataegus spp. | ● Pittosporum undulatum |
| ● Dracaena draco | ● Prunus laurocerasus |
| ● Eriobotrya deflexa | ● Quercus agrifolia |
| ● Eugenia uniflora | ● Quercus lobata |
| ● Ligustrum lucidum | ● Sequoia sempervirens |
| ● Magnolia grandiflora | ● Umbellularia californica |
| ● Olea europa | Boundary |

Exhibit 3 - Inventory Map
 Pacific Western Bank Property
 Central Park Adjacency
 San Mateo, California
 Tree Inventory



Species Name

- Brachychiton populneus
- Ilex spp.
- Ligustrum lucidum
- Pinus radiata
- Pittosporum eugenioides
- Pittosporum undulatum
- Quercus agrifolia
- Quercus virginiana