



Line Number	Description	Details	Species	Condition Ratings	Municipal Protection Status?	Total Count
11	Conceptual Landscape plan and Irrigation plan impacts to existing trees (as applicable)	Only limited impact assessment was performed by WLCA, due to the conceptual nature of the current designs shown on proposed plan sheet P-0603, etc. available as of the date of writing.	WLCA reviewed tree species proposed for use by the landscape architect Olin Studio in 2016, and offered alternatives to some species or cultivars deemed inappropriate. WLCA also offered limited analysis of potential landscape and irrigation trenching impacts to existing trees. See section 5.0 of this report below.			

2.0 Assignment & Background

Walter Levison, Consulting Arborist (WLCA) was initially retained in 2015 to tag and assess 895 trees throughout the existing site that extends from perimeter road west to perimeter road east, and from freeway 280 to Stevens Creek Boulevard, Cupertino, California, including median trees along North Wolfe adjacent to the project site. The east boundary of the survey area was a property owned by Apple Inc. The west boundary of the survey area was a developed single family residential area. Tags in this area are tagged #1 through #875 (round-shaped tags), with median trees tagged as #1,106 through #1,125 (racetrack-shaped tags) along N. Wolfe Road.

WLCA's initial work product consisted of an Excel tree data set in PDF format, along with digitally marked up tree location maps. The initial proposed development set of plans had not yet been developed at that time, and was not available for review.

A secondary tree study was also completed by WLCA, which involved tagging, assessing, and locating on a topo sheet all trees located north of the project site in a triangular lot known as 'alternate lot west', situated between the northwest corner of the project site and freeway 280. Trees in this area were tagged as trees #876 through #1,105, with round-shaped tags to #1,000, and racetrack-shaped tags for trees numbering greater than 1,000. Twenty (20) additional North Wolfe Road median trees #1,106 through #1,125 were added at this time, using the racetrack-shaped tags as noted above.

WLCA was later retained in September 2015 to prepare a formal written arborist report that was to include the following items:

- a) Review the set of proposed plan sheets as available in September 2015. If possible, note conflicts where initial proposed utilities and construction may impact trees being retained, and discuss adjustments to the plans as applicable.
- b) Update the existing Excel tree data spreadsheet to note an "X" in removal column indicating tree to be removed.



- c) Discussion of trees to be retained and trees to be removed, including species overviews, condition ratings, etc.
- d) Note trees protected per Cupertino City Tree Ordinance being retained and removed.
- e) Note trees suggested by WLCA to be removed due to very poor condition.
- f) Note possible adjustments to the scope of construction to optimize tree survival and/or preserve important trees on the site as applicable (see also item 'a' above).
- g) Note irrigation and soil moisture deficit concerns and options.
- h) Note tree part failure risk concerns.
- i) Archive digital images of some important or otherwise noteworthy tree specimens and include those images in the report.
- j) Attach the updated Excel tree data charts and a master tree location basemap to the report.
- k) Prepare recommendations for transplanting on-site for significant sized trees that are expected to be removed as a result of site plan work, with new install locations to be noted by Consultant on the proposed site plan drawings. Specifications for holding trees in boxes, etc. (i.e. "box holding" recommendations for irrigation, maintenance, etc.).
- l) Recommendations for tree protection and maintenance based on arboriculture BMPs, with phased protection and maintenance conforming to the current proposed demolition and construction phases 1, 2, and 3.

All of the above items are included in this written report. Most of the information has been presented in matrix (table) form, for ease of reference. The updated WLCA tree data sheets (Excel format) are attached to this report.

12/10/2017 and 01/15/2018 Updates:

- WLCA reviewed the new tree disposition plan sheet P0602, iteration date 1/02/2018, which shows trees to be retained, trees to be removed, and trees to be transplanted as small color-coded circles along with each tree's numeric tag number. This sheet is attached to this report for reference of existing tree locations.
- WLCA revisited the site on 12/8/2017 and assessed all tree specimens along Stevens Creek Blvd and along North Wolfe Road to determine overall condition ratings. These ratings were added to the rightmost column of the tree data table. The data table with these updated ratings is attached to the end of this report. Due to time constraints, no trees in areas other than these two major street planting zones were reassessed.

One important note: Shamel ash (*Fraxinus uhdei*) undergoes an unusual Fall season leaf senescence (dieback) during which time each individual tree specimen loses a portion of its leaves. The actual loss of leaves falling to the ground may range from zero to 50% or more of an evergreen ash's tree's entire foliar canopy, and is considered a normal process as might occur on a deciduous tree species. The problem with this unique senescence in evergreen ash trees is that the variation in total loss of foliage in Fall makes it very difficult for an arborist to visually assess the tree's overall condition rating from the ground in an accurate manner. Therefore, the condition ratings determined by WLCA on 12/8/2017 for evergreen ash trees along Stevens Creek Blvd and along N. Wolfe Road are considered "approximate" due to this variability in leaf loss, since in many cases the loss of foliage on these trees appeared to be due both to normal Fall leaf senescence and to twig and branch dieback resulting from years of California drought conditions.



- WLCA revisited the site on 1/9/2018 to determine overall condition ratings for all of the evergreen tree specimens throughout the entire Vallco project site (e.g. coast redwoods, southern magnolias, etc.). During this most recent site visit, shamel ash, pears, Chinese elms, and other deciduous tree specimens were omitted from the study, given that by January, these trees had lost most or all of their foliage for the winter leaf senescence period. Determining accurate overall condition ratings for these trees was no longer possible by this date of survey.
- The report summary section was completely updated to show current tree tag number tree disposition, based off the tree disposition sheet P0602 iteration 1/02/2018. In addition to the list of trees to be removed by the project, additional trees currently dead or in very poor overall condition are included in a separated updated list of WLCA-suggested trees to be removed. Various report tables were updated to account for the significant change in tree overall condition ratings observed in this most recent field assessment.
- WLCA reviewed the 1/2/2018 iteration of conceptual utility plans, grading and drainage plans, landscape plans, etc., and commented on these throughout this report update where applicable.

3.0 Observations & Discussion

3.1 Predominant Tree Species at Property

Tree Species	Number of individuals	Percent of total tree population of 895 individuals surveyed in Spring 2015
Shamel ash (<i>Fraxinus uhdei</i>)	399	45%
Coast redwood (<i>Sequoia sempervirens</i>)	319	36%
Pine species (mainly <i>Pinus radiata</i> and <i>Pinus pinea</i>)	65 (approx.)	7%

As seen above, the tree population percentages of coast redwood and shamel ash along the project property perimeter are far too high for a stable urban forest situation. In an ideal world, we would stratify the population out using a large number of tree genera and species to guard against pest and disease outbreaks (and abiotic issues such as drought conditions) that could potentially wipe out a large percentage of the tree population.

The existing monoculture type planting was from an earlier era when the project site was originally built out and planted using mainly coast redwood and shamel ash. These trees are very heavy water users, and have been suffering for years during the continuing California drought conditions with subnormal rainfall. Supplemental very heavy irrigation on a regular basis throughout the year is crucial to keeping coast redwood and shamel ash alive and vigorous. However, the ash and redwood specimens at the site have not been receiving this level of irrigation, and are spiraling into decline and in many cases death.



At this time, the property owner is not proposing any significant alterations to the perimeter tree populations on the property, and the screening benefit of the perimeter trees will remain as long as individual trees are alive and thriving. Note also that many of these trees are not actually on the project property and are actually within a public utility right of way (personal communication, project property owner 10/23/2015).

WLCA Update 1/15/2018: 30% of the coast redwoods along the Vallco perimeter roads are now in "very poor" condition, and 9% of the coast redwoods are "dead". These trees are suggested by WLCA to be removed due to their limited usefulness in the landscape, and are noted by tree tag number in Summary Table 1.0, Row 5.

3.2 Tree Condition Studies

Overall Tree Condition Ratings for Two Main Species in Population as of 2018:
(Not including alternative lot west)

Tree Species	Number of individuals	Dead (as of 01/2018)	Very Poor (as of 01/2018)	Poor	Fair	Good	Excellent
Coast redwood	319	Est. 30	Est. 97	Est. 30	Est. 105	Est. 55	2
Percent of redwood population	(100%)	Est. 9%, up from 5% in 2015	Est. 30%, up from 16% in 2015	Est. 9%	Est. 33%	Est. 17%	<1%
Tree Species	Number of individuals	Dead (as of 12/2017)	Very Poor (as of 12/2017)	Poor	Fair	Good	Excellent
Shamel ash (Only the overall condition ratings of trees along Stevens Creek Blvd and along N. Wolfe Rd. updated 12/2017)	399	2	76	185	126	10	0



Percent of Shamel ash population	(100%)	<1%	19%	46%	32%	3%	0%
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Interestingly, the above study originally showed somewhat of a bell curve form, where most of the tree individuals rated out with overall condition ratings in the middle portion of the rating range (range is from dead (0%) to excellent (90% to 100%). However, after WLCA's reassessment in 2018, the coast redwood bell curve became misshapen, with a disproportionate number of trees (roughly 63% of the total population) ending up in the "very poor" and "fair" categories. What basically occurred was that many of the trees in the "poor" category declined over the last few years of drought, and fell into the "very poor" category, thereby reducing trees remaining in the "poor" category.

If droughty conditions continue in California with subnormal natural winter period rainfall, many of these trees could continue spiraling into decline and end up with all ratings in the dead, very poor, and poor portion of the rating range, unless very heavy irrigation were to be commenced at this time and continued regularly through the entire winter.

(WLCA update 2018): In fact, we did experience continued droughty conditions through 2016, which caused an additional 71 trees (mainly coast redwood specimens) to either newly fall into a state of "very poor" condition (i.e. drop below the threshold of 30% overall condition rating points) or newly die outright (see list of trees in row 5 of the summary section table). Although a few coast redwood specimens did improve in terms of overall condition ratings, the above average rainfall that occurred in the 2016-17 water year did not seem to significantly improve the overall tree health or structural status at Vallco, and the current water year 2017-18 may become yet another drought year in terms of total rainfall inches, further exacerbating the soil moisture deficit issue.

Author's Side Note / Shamel Ash Assessment:

WLCA was requested to reevaluate all shamel ash specimens proposed to be retained by the project team as per tree disposition sheet P0602 iteration date 1/2/2018, along the North Wolfe Road and Stevens Creek Blvd. major view corridors. The result of this site visit was that a larger number of trees were found to be in very poor overall condition (i.e. between zero and 29% overall condition rating). Trees in very poor condition are typically recommended to be removed from the landscape due to limited safe and useful life expectancy. As of 12/10/2017, WLCA added all shamel ash specimens in very poor condition (only specimens along the above-noted two street planting areas) into the "WLCA Recommends Removal" category, noted by tag number in the summary table above in this report.

It was relatively very difficult to assess the ash specimens in December 2017, due to the fact that individual ash specimens tend to hold onto their leaves in Fall/Winter at varying rates that range from 100% retention to roughly 50% retention, even though the species *Fraxinus uhdei* is generally known to laypersons as "evergreen ash". This presents a problem with visual assessment, since many trees will lose a large percentage of their foliar canopy as part of normal leaf senescence that resembles the process for deciduous trees. The tree may be termed "partial deciduous" given its tendency to lose foliage.



The species also drops a profusion of winged keys or “samaras” (the fruits of the ash tree) which fall from short stems along extended branches that appear as fruit clusters in the tree. This causes the tree to appear further denuded in Fall, and to the casual eye may look as if the tree is “dying”. In fact, all of the branches that hold samaras are living stems, and are in no way related to twig dieback or other decline of the tree’s health or structure. The presence of the denuded fruit cluster branches does however further complicate the visual assessment of an evergreen ash tree’s status in Fall and Winter, as it creates bare patches in the canopy that appear “dead” unless the arborist assessor can identify the presence of the tiny stems present along the cluster branches from which the samara fruits disengaged.

3.3 Drought Effects on Project Site Trees

Given the current low soil moisture conditions that have been present in the San Francisco Bay Area for multiple years now, and continued subnormal natural rainfall conditions, the moisture available to the coast redwood and shamel ash tree root zones at the project site is very minimal. This has resulted in chronic loss of live twig density and live foliar density in the trees, which is expressed visually as desiccated, dead patches of canopy seen in the trees, especially in the outermost, uppermost sections of the tree canopies of individual specimens along the east and west sides of the west perimeter road (see images below in this report).

It is not clear whether tree vigor (new live twig and foliar growth) will be or can be boosted through either very heavy, sustained supplemental irrigation of the trees’ root zones, or through natural rainfall finally occurring after the (existing) prolonged period of subnormal soil moisture. Generally, trees that decline to an overall condition rating of poor (i.e. less than 50%) will not increase in vigor until very heavy irrigation is applied over an extended period of 6, 12, or even 18 months¹ to the trees’ entire root zone areas. Even after this type of serious irrigation regime commences and is continued for the extended period, the trees may still not respond favorably, and will continue to decline.

High quality irrigation water with low ionic content needs to be available for supplemental irrigation of coast redwoods. See section 3.5 below for more information.

¹ Levison, Walter. Professional consulting experience with irrigation of coast redwoods on construction sites on South Bay and Peninsula, Bay Area locations, between 1999 and 2015.



3.4 Soil Moisture Deficit / Moisture Requirements

Shamel Ash and Coast Redwood Moisture Requirements

In order to keep coast redwood and shamel ash specimens from declining in live twig density, live twig extension, and live foliar density over time, a very heavy irrigation regime will need to be set in place as an over-grade no-dig type system placed over the ground throughout the open soil root zones of individual trees and groupings of these trees being retained at the project site.

Although the actual volume of supplemental water to be applied per week per coast redwood specimen varies with soil conditions, weather, solar exposure, and other issues, the following is a set of rough guidelines for water application based on the author's experience. Note that use of a heavy mulch of coarse chipper truck type wood chips lain over the ground surface in a 4 to 6 inch thick layer can significantly reduce evaporation, and thereby help reduce supplemental irrigation needs:



Supplemental Irrigation	Per Week	Per Month, Year-Round (See "Winter Tier")	
1. Tier 1 "Optimal" for an individual coast redwood	Suggest 1x/week irrigation event	20 gallons per each 1 inch of trunk diameter	Based on a standard set forth by another consulting arborist
2. Tier 2 Moderate level (OK for trees with grafted root systems, etc.)	Suggest 1x/week irrigation event	10 gallons per each 1 inch of trunk diameter	
3. Tier 3 During water use restriction periods	Suggest 1x/week irrigation event	5 gallons per each 1 inch of trunk diameter	



Supplemental Irrigation	Per Week	Per Month, Year-Round (See "Winter Tier")	
4. Tier 4 During Winter Storms (regular heavy rain events)		Temporary shutoff of irrigation system OK between December and March, depending on intensity of and frequency of rain events.	
5. Optional: Fog, Spray, or Mist Systems	(3x to 7x/week)		

WLCA generally recommends that irrigation events occur once weekly (1x/week) throughout the entire "open soil sections of the root zones" of the trees, which may be as large as 25 feet radius or more in some cases. The trees' root zone areas need to be allowed to "dry down" as water percolates through the uppermost few feet of the soil profile, and is then used by the trees (transpired) or evaporates into the atmosphere (evaporation from open soil). As noted above in this section, use of mulch is beneficial if a layer 4 inches thick can be placed over the open soil root zone areas of the trees, between approximately 1 foot out and 25 feet out from the trunks of the trees.

Optionally, we could install some type of fogging system to augment moisture uptake by the trees by adding fog water to some lower canopy or mid canopy locations. Redwoods in their natural range along the Northern California coast and Oregon coast forests derive a significant percentage of their water moisture through direct acquisition of fog water through their needles². Thus, use of a fogging system could potentially be of great benefit to the trees, if such as system could be affixed to locations near canopies at varying elevations above grade. At right is an image of an actual installed aerial misting system in use on local peninsula Bay Area project redwood specimen. These systems would require a substantial initial investment in piping, mistheads, and labor to install, but have been beneficial in terms of increasing tree survival during hot or windy periods, according to other arborists and nurserymen I spoke with in 2015.



² Burgess SSO, Dawson TE (2004). *The Contribution of Fog to the Water Relations of Sequoia sempervirens (D. Don): Foliar Uptake and Prevention of Dehydration*. Plant Cell Environ. 27:1023-1034.



3.5 Ion Content in Recycled Water / Standards

Many municipalities such as San Jose and Palo Alto are using recycled water as a regular component of their City parks irrigation regime. However, this does come with known drawbacks. Coast redwoods are known to be sensitive to ion concentrations in soil water per the text referenced below³. The text notes that coast redwood has low tolerance of boron ion in recycled water. Ion sensitivity of coast redwood as related to other ions such as sodium, chloride, or ammonium was not specifically noted in the text. However, per the author’s conversations with numerous city arborists and consulting arborists in the Bay Area, coast redwood appears to have low tolerance of specific ionic content in water in addition to boron ion.

The following table derived from information in the below-referenced text provides some guidelines for total ion content of various ions in recycled water at levels that could be deemed “safe” for trees with low tolerance (high ion sensitivity), although this is only a guideline, and was published more than 10 years ago:

Irrigation Water Ion	Type of Measurement	Content Range Considered “Safe” for Landscape Irrigation	Unsafe for Tree Species with Low Tolerance to Stated Ions
TDS Total Dissolved Solids	Mg/l	<450	450 to 2,000
Salinity	Mmhos/cm	<0.7	0.7 to 3.0
Boron	Mg/l	<0.5	0.5 to 1.0
Chloride (surface bubbler irrigation)	Mg/l	<140	140 to 300
Chloride (sprinkler irrigation)	Mg/l	<100	>100
Sodium (surface bubbler irrigation)	SAR	<3	3 to 9
Sodium (sprinkler irrigation)	Mg/l	<70	>70

Salinity tolerance of various tree species proposed in project tree palette by the landscape architect is noted in the reference shown in this report as citation #3. WLCA is in communication with the landscape architect staff to discuss salinity tolerance issues.

³ Costello, Perry, Matheny, Henry, and Geisel (2003). *Abiotic Disorders of Landscape Plants: A Diagnostic Guide*. UC ANR Publication 3420. ANR Communications Services. Oakland, California.



EXISTING REDWOODS

The new project does not propose to use recycled water for irrigation of the existing redwoods being retained as perimeter screening (personal communication 10/23/2015, property owner). Therefore, the ionic content of irrigation water appears (at the time of writing) to be an issue with new proposed tree plantings only.

USE OF RECYCLED WATER BLEND AND FLUSHING SEQUENCES

To reduce ion content in irrigation water to acceptable levels per the above matrix guidelines, recycled water with high ion content can be blended with standard municipal drinking water prior to running it through irrigation systems for surface application to trees. Per the property owner, this blending will be performed seasonally during non water-restriction periods in order to comply with local regulations regarding potable water use for landscapes during drought periods.

Another “trick” that can be performed to reduce ionic content remaining in the root zones of trees is to use recycled water for a number of irrigation cycles (e.g. 4 to 9 cycles), then “flush” the root zones by using a 5th or 10th irrigation cycle of 100% municipal drinking water (anecdotal reference). This would require that a very detailed record of irrigation be maintained by a groundsperson on site, to record exactly when recycled water and drinking water was applied to very specific landscape zones. Both recycled water and drinking water would need to be available side by side as irrigation system inputs with manual levers that would be operated by the groundsperson.

OAK TREES BEING INSTALLED

Per discussions with arborist Dave Muffly who is an expert in oak tree selection and cultivation, oak species being installed at the project should be provided with municipal drinking water as the irrigation water source, without any blending with recycled water. This is recommended to avoid potential problems with ion sensitivity by the oaks. Mr. Muffly notes that an adjacent project will not use recycled water for irrigation of the oaks (this project is also within the jurisdiction of City of Cupertino, and has recycled water piping that will be used for irrigation of non-oak landscape zones).

As regards the project roof planting area where many oak species will be installed, we may need to develop a special dual piping system which will allow for recycled water and standard drinking water sources to be piped up separately. This would allow the two water sources to be applied in an alternating manner and/or blended in a tank prior to being applied to sensitive species such as the oaks and fruit bearing orchard trees, to reduce the overall ionic content being applied to the landscape over time.

RECYCLED WATER EFFECTS ON FRUIT-BEARING ORCHARD TREES

WLCA Update 2018: The green roof planting plan sheets are no longer proposing use of fruit trees as plantings for the green roof area, except for Lapins cherry (*Prunus avium* ‘Lapins’). As noted on the plans, however, the tree species proposed to be installed at the Vallco site are “subject to change”.

Per the text referenced in citation #3 in this report, fruit-bearing tree species originally proposed by the team for the rooftop orchard which were to be for human consumption are noted in the text as exhibiting “low” relative tolerance to ionic content in recycled water used for irrigation. Given that fruit bearing orchard trees generally require heavy irrigation, this is of concern if recycled water is going to be used on the project’s greenroof where the orchard areas will be located. As



noted above in this section of the report, blending recycled water with municipal drinking water can bring down ionic concentration to levels below the safe thresholds noted above in the matrix. Flushing the tree root zones by use of 100% drinking water on a periodic basis may also be a viable method of reducing ionic concentration buildup in the root zones of the trees, such as the example WLCA noted of 4 to 9 irrigation cycles using recycled water, followed by a 5th or a 10th irrigation cycle using 100% municipal drinking water (anecdotal reference).

Per the author's recent conversation with a Northern California soil scientist who specializes in orchard soils, the inability for fruit trees such as cherry, apricot and apple to tolerate ion content in recycled water used for irrigation appears to be verified. Blending and/or other dilution is warranted.

Again, use of a dual piping system to bring up both standard drinking water and recycled water sources to the greenroof may be able to solve the problem of ionic content in recycled water being applied to the orchard areas, as it will allow us to blend the two sources of water and/or apply them to the landscape in an alternating manner to flush salts through the soil.

WLCA suspects that over time, municipal recycled water may become of increasingly higher quality in terms of ionic content being reduced to below the low-tolerance sensitivity threshold of 0.7 Mmhos/cm salinity. Refer to the ionic content table on page 14 above for more information.



WLCA Update 2018 / Recycled Water Salinity:

WLCA spoke with Mr. Lyle Frohman of San Jose Recycled Water Treatment Plant in December, 2017 regarding the newest and best recycled water “blend” now available as a retail product for sale to certain municipalities for use as surface landscape irrigation⁴. Mr. Frohman detailed the following information:

- a. The Santa Clara Valley Water District’s new facility came online in 2014, called the “Silicon Valley Advanced Water Purification Center”. This 72 million dollar facility treats wastewater to the tertiary level, and is thus actually potable (theoretically drinkable), with extremely low levels of TDS (total dissolved solids).
- b. South Bay recycled water from the new plant is then “blended” with City of San Jose Recycled Water Treatment Plant’s recycled water of higher ionic content, thereby achieving an overall (average) TDS of 490 parts per million⁵: below the treatment target threshold of 500 TDS for use as surface landscape irrigation water.
- c. This recycled water “blend” is then sold wholesale to four customers:
 - i. City of Milpitas.
 - ii. City of San Jose.
 - iii. San Jose Water Company.
 - iv. City of Santa Clara.

These customers then sell the water blend as a retail product to commercial customers located within their jurisdictions.

These four entities can be contacted to determine if the recycled water blend is available for purchase by Vallco for use as landscape irrigation water (see contact details at right).

Use of the South Bay blended recycled water which tests at less than 500ppm total dissolved solids means that we would no longer have to worry about landscape tree or plant sensitivity to ionic content in the water, and no additional dilution/blending would be needed prior to our release of the water onto the greenroof or street level planting areas.

CONTACTS

SBWR
City of San José Environmental Services Dept.
 Media contact: Jennie Loft (408) 535-8554

RECYCLED WATER RETAILERS

City of Milpitas Water & Sewer
 Public Works Department
 1265 North Milpitas Boulevard, Milpitas, CA 95035
 Phone: (408) 586-2600 www.ci.milpitas.ca.gov

City of Santa Clara Water & Sewer Utility
 1500 Warbutron Avenue, Santa Clara, CA 95050
 Phone: (408) 615-2000 www.santaclaraca.gov

San Jose Municipal Water System - Recycled Water
 Engineering & Operations
 3035 Tuers Rd., San José, CA 95121
 Phone: (408) 535-3500 www.sanjoseca.gov

San Jose Water Company
 110 W. Taylor St., San José, CA 95110
 Phone: (408) 279-7900 www.sjwater.com

⁴ It is not known whether this special recycled water “blend” is available to City of Cupertino area customers such as Vallco.

⁵ Average TDS per 2017 City of San Jose water recycled water quality report at: sanjose.gov/recycled_water/retail_customer_information/water_quality_reports



3.6 Effects of Proposed New Utility Plan on Woody Roots

The negative effect of proposed new utility trenching per project sheet P-0406 on existing trees to be retained could be significant to severe, depending on the actual final alignments of these utility trenches. The current plan sheet shows utilities as conceptual routing only, and it is therefore difficult to determine actual impacts to specific trees. However, WLCA did note various groupings of trees and expected (potential) impacts to those trees from utility trenching, in the summary table 1.0 lines 8, 9, and 10 above in this report.

Typical woody lateral root growth extends from trees at least 3X to 5X the canopy dripline radius per previously published arboriculture science texts. This growth is generally present between grade elevation (i.e. soil surface) and down to approximately 24 inches below grade in our western Bay Area urban clay-based soils, though in some cases, older redwoods and oaks can achieve large diameter woody root growth at depths as far as 50 to 60 inches below grade⁶

For tree stability maintenance, it is acceptable to sever roots at locations within 25 to 30 feet of large diameter coast redwoods and shamel ash. However, utility trenching within 25 feet of those trees may cause severe negative impacts to the trees' health and structural condition, resulting in premature decline and/or death. In those cases where utilities need to be routed within 25 feet of large trees being retained, WLCA suggests using pit to pit directional bore technology whereby conduit is pushed and pulled **below** the root systems of trees being retained, thereby allowing for almost complete root preservation when done correctly. See image of pit to pit directional bore in action below on one of my projects in the Bay Area. In this particular case, the bore started above ground, and ended at a pit.



⁶ Levison, Walter. Professional experience on Bay Area construction sites from 1999 to 2015.



4.0 Risk of Failure / Tree Risk Assessment Qualified (TRAQ)

Prior to the newer International Society of Arboriculture (ISA) TRAQ system (tree risk assessment qualified) coming into place as the new international standard for tree part and whole tree failure risk assessment, arborist consultants referred to an older numeric system of 12 points which consisted of:

(Outdated Rating System)

- Failure potential of identified part (1 to 4 points)
- Size of part (1 to 4 points)
- Target rating (1 to 4 points)

The final numeric “hazard rating” derived from this system ranged from 3 to 12 points⁷.

The newer system is based on alpha-type ratings, and requires the tree risk assessor to attend a rigorous training class sponsored by the ISA, after which the assessor takes a final exam. Assessors that pass the final exam are then given the title “tree risk assessment qualified”, after which time they are allowed to use the published system and its components⁸ and prepare information on tree risk in written reports. Qualified tree risk assessors must retake the qualification course and exam every few years to renew status as tree risk assessment qualified. The basic TRAQ process has been amalgamated into a matrix below (next page) for readers of this report.

Note that TRAQ risk ratings are derived after consideration of various different failure modes (e.g. branch, scaffold limb, mainstem, whole tree) and different targets such as vehicles, pedestrians, bicyclists, residential structures, commercial buildings, etc. Target frequency and duration at a specific target zone, such as cars and pedestrians stopped at a traffic light, are considered when determining target “occupancy”, in order to determine risk of tree part failure and impact of that tree or tree part onto that specific target at that moment when the target is occupying the target zone radius.

⁷ Matheny, Nelda and Clark, James. 1994. *Evaluation of Hazard Trees in Urban Areas. 2nd edition*. International Society of Arboriculture, Urbana, Illinois.

⁸ Duster, Julian et. al. 2013. *Tree Risk Assessment Manual*. International Society of Arboriculture, Champaign, Illinois.



TRAQ Protocol Amalgamation

Likelihood of Failure	Likelihood of Impacting Target			
	Very Low	Low	Medium	High
<i>Imminent</i>	Unlikely	Somewhat Likely	Likely	Very Likely
<i>Probable</i>	Unlikely	Unlikely	Somewhat Likely	Likely
<i>Possible</i>	Unlikely	Unlikely	Unlikely	Somewhat Likely
<i>Improbable</i>	Unlikely	Unlikely	Unlikely	Unlikely
Improbable: The tree or branch is not likely to fail during normal weather conditions and may not fail in many severe weather conditions.				
Possible: Failure could occur, but it is unlikely during normal weather conditions.				
Probable: Failure may be expected during normal weather conditions.				
Imminent: Failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load.				
Very Low: Remote chance that failure will impact target. Rarely used site fully exposed; occasionally used site partially protected. Rarely used trail or trailhead in a rural area, or an occasionally used area that has some protection due to other trees between the failure and the target.				
Low: Not likely that failure will impact target. Occasionally used area fully exposed; frequently used area partially exposed; constant target well protected. EX: a little-used service road next to the tree, or a frequently used street with a street tree between the assessed tree and the street.				
Medium: Even odds that failure will impact target. Frequently used area fully exposed on one side of tree; constantly occupied area partially protected. EX: suburban street next to street tree, or a house partially protected by an intermediate tree.				
High: Likely that the failure will contact the target. A fixed target is fully exposed. EX: near a high-use road or walkway with an adjacent street tree.				
Likelihood of Failure and Impact	Consequences			
	Negligible	Minor	Significant	Severe
<i>Very Likely</i>	Low	Moderate	High	Extreme
<i>Likely</i>	Low	Low	Moderate	High
<i>Somewhat Likely</i>	Low	Low	Low	Moderate
<i>Unlikely</i>	Low	Low	Low	Low
Negligible: low value damage or disruption, no personal injury.				
Minor: low to moderate damage, small disruptions to traffic or communication lines, or very minor personal injury.				
Significant: moderate to high value damage, considerable disruption, or personal injury.				
Severe: high value damage, major disruption, severe personal injury or death.				



As of January 2018, approximately 484 trees at the project site are proposed to be removed from various sections of the existing property, and approximately 136 additional trees are proposed by WLCA to be removed due to very poor overall condition or structural and/or health issues that are unmitigable, for a total of approximately 620 potential removals out of 895.

After subtracting for six potential transplants and the two removals that occurred last year (2017) at the corner of Wolfe and Stevens Creek Blvd, this leaves a total of approximately 267 trees out of 895 total surveyed that are theoretically to remain on site, mainly coast redwoods and shamel ash, along the perimeters of the site that are vulnerable to proposed construction damages in terms of both subgrade impacts to roots from utility conduit and pipe trenching, soil compaction, etc. and above-grade physical impacts to the trunk tissues and canopy live wood and foliage.

Use of WLCA and/or other arborists as monitors will help minimize risk of tree damages that could increase risk of whole tree and tree part failure and impact to targets.

Designing around trees to avoid deep excavation, trenching, grading, construction, and other work within 20 horizontal feet of trunk edges can go a long way toward reducing impacts to the trees being retained, and reducing risk of tree failure and impact to targets.

Given the existing issue of soil moisture deficit (i.e. "drought stress") and lack of adequate irrigation to boost soil moisture within the root zones of trees being retained, WLCA expects that many of the trees to remain may actual become moderate risk or high risk specimens over time due to their premature decline in terms of loss of live twig density. As an example of our current risk exposure and future risk of tree failure and impact to targets as related to irrigation, WLCA offers the following sample risk assessment of a typical coast redwood along the west perimeter road:

SAMPLE RISK ASSESSMENT FOR A COAST REDWOOD TO REMAIN AT THE PROJECT

Typical coast redwood specimen / Mode of Failure	Location	Condition (Average existing)	Likelihood of failure	Likelihood of impacting target pedestrians and cars	Likelihood of failure and impact	Consequences	Risk of Failure and Impact (Existing)
#772 to #871 Failure Mode: Branch	West side of west perimeter road	Fair	Possible	High	Somewhat Likely	Significant	Low
Typical coast redwood specimen / Mode of Failure	Location	Condition (Future estimated)	Likelihood of failure (Future est.)	Likelihood of impacting target pedestrians and cars	Likelihood of failure and impact	Consequences	Risk of Failure and Impact (Future est.)
#772 to #871 Failure Mode: Whole Tree	West side of west perimeter road	Very Poor (If trees not heavily irrigated year round)	Probable	High	Likely	Severe	High



EXISTING “ELEVATED RISK” TYPE TREES

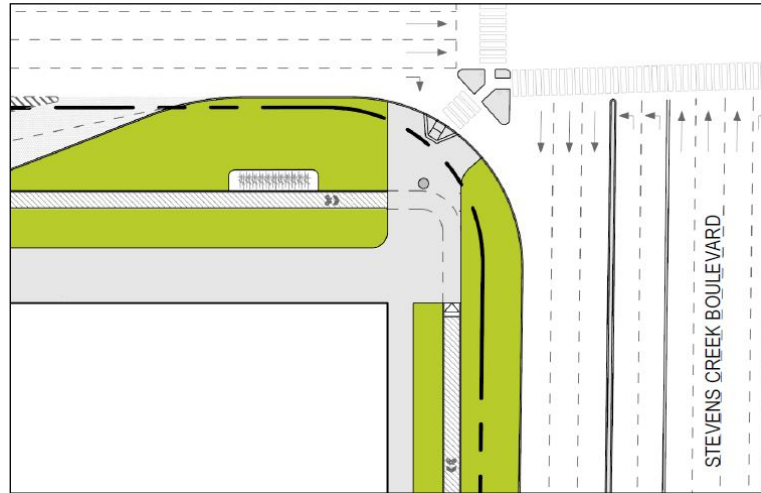
Although outside of the initial scope of WLCA’s tree assessment assignment, it is noteworthy that some existing trees exhibiting significant lean off from vertical, girdling roots, and/or woody buttress roots severed on one or more side of the root plate during landscape irrigation pipe trenching and/or sidewalk replacement could be categorized as “elevated risk” type trees that currently rate out as moderate or high risk of failure and impact to target. These include trees proposed by the project team to be retained, such as, but not limited to **trees #95, 434, 435, and #726**. The author has suggested that these trees be removed due to very poor overall condition ratings, as noted in the summary table above in this report. Tree #95, although it is a relatively small tree specimen, has an active crack opened up at the mainstem fork, and is considered an “imminent risk” of failure and impact that could fail at any moment onto a car or pedestrian.

There may be many additional trees that become “elevated risk” specimens due to root loss, root damage, and continued soil moisture deficit, during the actual construction of phases 1, 2, and 3 at the project over time. Use of heavy irrigation at the site starting now (2018) may be very beneficial in the long run in terms of reducing dieback and lengthening expected useful lifespan of the trees by providing good soil moisture to trees being retained.

5.0 Landscape & Irrigation Pipe Installation Concerns

Demolition of Existing Planters / Concerns:

Demolition of existing curbs, planting areas, asphalt parking stall surface materials, etc. to make way for new landscaping may cause significant or severe damage to the below ground portions of trees being retained such as shamel ash at the southwest end of the site along the south boundary of the former Sears parking lot (see sample blowup at right, showing proposed planting plan, street level, sheet P-0605).



WLCA’s main concern in areas such as this involves demolition crew activities during removal of surface hardscape and deep curbs, which may be comingled with existing woody tree root systems. When pulling out the curbs and hardscape piece by piece, these roots may become tangled with the machinery bucket teeth and be pulled, ripped, or otherwise destroyed or damaged in the process. Therefore, an arborist monitor is suggested during demolition of any material within approximately 20 feet of a tree to be retained. As noted above in this report, we know that woody tree roots can extend laterally as far as 3x to 5x the canopy dripline distance from the trunk edge, which means that a 20 foot radius canopy tree may theoretically have roots extending as far as 60 to 100 feet radius out from trunk, even under asphalt, if there are no physical impediments to growth extension such as deep curbs or deep foundation footings.

Irrigation Pipe Trenching / Concerns:

New irrigation pipe trenching will need to be performed in a manner that allows for maximum lateral woody root retention when within 20 horizontal feet of trees being retained. Toward this end, we will need to modify the standard (typ.) municipal code 18 inch depth of cover spec detail



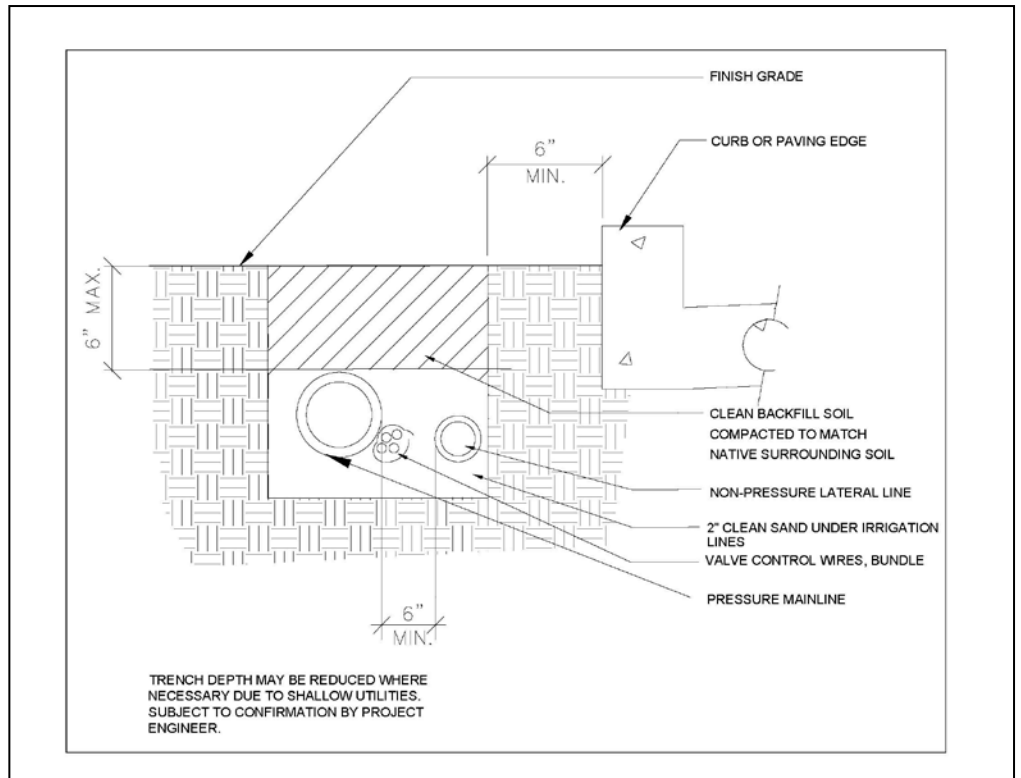
used in most jurisdictions for schedule 40 PVC piping, and instead use one of the following options:

- a. Option 1: "No Dig". This irrigation type uses flexible 1/2" diameter tubing that starts at a PVC riser at 20 feet or farther from a tree trunk of a tree being retained, and proceeds to snake over the ground to locations within 20 feet of a trunk of an existing tree where irrigation is needed. Bubblers are either affixed to the tubing itself, or to offshoot 1/4" diameter tubing with bubblers. There is also emitter line that is available in 1/2" diameter, with built in bubblers, though these tend to clog easily.

The no-dig option is optimal in terms of protecting lateral tree roots extending out from existing trees. However, vandalism is always a problem. The tubing can be buried slightly by covering it with a 4 inch thick layer of wood chip mulch to avoid some vandalism, but further measures may need to be taken to keep the tubing flush with the soil surface, such as pinning down the tubing with professional grade steel landscape U-pins, etc. See image at right.



- b. Option 2: "Six Inch Cover" Rule: Use a modified specification such as a setup where a maximum of six (6) inches of soil cover is specified as the maximum allowable vertical space between top of newly installed PVC irrigation pipe and original soil grade elevations, within 20 feet of a tree trunk. Below is a sample specification side cut detail showing this "shallow cut" type setup that was used for a recent project where new



landscaping was to be installed within 20 feet of valuable cedar specimens being retained in Palo Alto, California:



6.0 Tree Transplant Options

Trees currently proposed by the project team for transplant include six (6) protected-size⁹ California sycamore specimens protected by City tree ordinance **#414, 415, 416, 260, 261, and #262**. These are larger trees, some of which exhibit defects such as mainstem lean off from vertical, and/or lopsided canopy form.

The trees are all currently in “fair” overall condition, except for tree #262 which is in “good” overall condition. Typically, trees rated in “fair” condition are not good candidates for transplant.

Transplanting, depending on whether a tree is immediately moved and installed at another location, or is boxed up and held above ground with temporary irrigation for a number of months or years prior to permanent reinstallation at the transplant site, can cost on the order of \$5,000 to \$20,000 or more per tree for larger trees (e.g. a 15 inch diameter coast live oak). Thus, the costs of transplant are generally infeasible in terms of the cost of transplant versus appraised dollar values of the trees.

Typically, smaller diameter trees such as those 10 inches trunk diameter or less, in good overall condition (i.e. 70% overall condition rating or better), with upright, symmetrical branch and limb architecture are the best candidates for transplant.

Larger diameter trees, older trees, trees in poor or fair condition, and specimens with asymmetrical root systems, sloping root systems on a non-level slope, and those which exhibit asymmetrical above-ground branch architecture, are for the most part not good transplant candidates.

Given these conditions, the survivability rate of the proposed six (6) transplants noted above may be 25% to 45% at best. Contact tree movers for quotes and for further assessment of transplantability, such as Brightview Landscape Services (formerly known as Valley Crest Tree Care, with its extensive tree moving division).

7.0 Assumptions and Limiting Conditions

Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised and evaluated as through free and clean, under responsible ownership and competent management.

It is assumed that any property is not in violation of any applicable codes, ordinance, statutes, or other government regulations.

Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.

The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

⁹ Per City of Cupertino tree ordinance.



Unless required by law otherwise, the possession of this report or a copy thereof does not imply right of publication or use for any other purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.

Unless required by law otherwise, neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the prior expressed conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initiated designation conferred upon the consultant/appraiser as stated in his qualifications.

This report and any values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

Sketches, drawings, and photographs in this report, being intended for visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys unless expressed otherwise. The reproduction of any information generated by engineers, architects, or other consultants on any sketches, drawings, or photographs is for the express purpose of coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by Walter Levison to the sufficiency or accuracy of said information.

Unless expressed otherwise:

information contained in this report covers only those items that were examined and reflects the conditions of those items at the time of inspection; and 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 problems or deficiencies of the plants or property in question may not arise in the future.

Loss or alteration of any part of this report invalidates the entire report.

Arborist Disclosure Statement.

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborist cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.





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

8.0 Certification





I hereby certify that all the statements of fact in this report are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Signature of Consultant Walter Levison





9.0 Digital Images Archived 2015 Onward (WLCA)

Tree #	Image	Tree #	Image
285 to 289 to be removed, looking northeast		277 to 284 to be retained, looking north	







Tree #	Image	Tree #	Image
261 and 262 to be transplanted, looking south		Sycamore 260 initially proposed by team to be transplanted. WLCA suggests removal of tree, or redesign the plan to work around it.	
414, 415, and 416 to be transplanted per current proposed plan.		416 initially proposed by the project team to be transplanted (WLCA suggests removal of the tree, or redesign of the project to work around it)	







Tree #	Image	Tree #	Image
<p>426 to 444 along west side of Alexander's Steakhouse</p> <p>Some of these trees are to remain, and others are suggested by WLCA to be removed due to safety (risk) concerns</p>		<p>Close-up of the roots severed along the west side of tree 438, (suggested by WLCA to be removed), during sidewalk replacement.</p>	
<p>Sidewalk heave (vertical displacement) along the east side of tree 431 to be retained. Infrastructure such as this with roots likely travelling under the hardscape should be left in-situ instead of being removed (if possible), since severe root loss could occur if the walk were rebuilt. Use diamond grinding to level.</p>		<p>Redwoods 423, 424, 425 to be removed at the steakhouse parking lot.</p>	







Tree #	Image	Tree #	Image
<p>Italian stone pines in JC Penny parking lot, looking south.</p>		<p>Example of redwoods and ash specimens 332, 333, and 335 in very poor condition due to soil moisture deficit, at the JC Penny parking lot.</p>	
<p>Trees 338 to 358 to be removed along the east side of the JC Penny parking lot.</p>		<p>Chinese elms and other trees being retained 521 to 541, looking south along the Apple Inc. property.</p>	







Tree #	Image	Tree #	Image
<p>Redwoods 500, 501, and 502 are dead in the southeast corner of the JC Penny parking lot area. These trees are planned to be removed.</p>		<p>In contrast to dead redwoods 500, 501, and 502 shown in the image at left, redwoods 505 and 510 at right are in decent condition just 30 or 40 feet west. The trees are to be removed.</p>	
<p>Shamel ash and redwoods 396 to 404 to be removed at the west side of JC Penny parking lot</p>		<p>Shamel ash 452 to 457 to be removed from the east side of N. Wolfe Rd.</p>	







Tree #	Image	Tree #	Image
<p>Close-up of tree 267 to be removed, which exhibits a severe girdling root issue due to planting strip width which severely restricted normal lateral root extension from the trunk</p>		<p>Grove of redwoods 204 to 218 to be removed just west of Dynasty Restaurant.</p>	
<p>Looking south down west perimeter road, at rows starting with tree 240 on left (row to be removed), and 703 at right (row to be retained)</p>		<p>Redwood specimens along the west side of west perimeter road are suffering severely from soil moisture deficit, and are generally declining or dying</p>	







Tree #	Image	Tree #	Image
<p>Monterey pine 726 rates out with a probable risk of failure due to lean, girdling roots, etc. This tree is in WLCA's suggested removal list.</p>		<p>Looking south along west perimeter road, again with trees on left to be removed (tree 165 southward), and trees on right to be retained (tree 771 southward)</p>	
<p>The dense screen along the west side of west perimeter road as shown here near tree 771 is in danger of dying due to soil moisture deficit. Replacement of these high water use trees with drought tolerant evergreen species is a viable option.</p>			 <p>Looking south along west perimeter road.</p> <p>The trees at right are trees 752 southward, and 852 southward, and are currently proposed to be retained.</p> <p>Trees along the left side (east side) of west perimeter road are to be removed.</p>





Tree #	Image	Tree #	Image
<p>Shamel ash trees 8 and 9 to be retained at the southwest corner of the project site.</p> <p>Note curb and asphalt displacement from root growth. If this hardscape is removed and replaced, severe root loss and root damage may result, ending in further tree decline or death.</p>			 <p>Shamel ash 9 to 36 to be retained along this south border of the site, looking east. Again, removal of or alternation of existing curb and asphalt materials could cause severe root damage to these already drought-stressed specimens, resulting in further tree decline or death.</p>
<p>Shamel ash 23 through 36 to be retained, looking southeast.</p>		<p>Shamel ash 42 through 50 to be retained along south border.</p> <p>Looking southeast.</p>	





Tree #	Image	Tree #	Image
<p>Monterey pine 51 at southeast corner of the project site. This tree is dead, and needs to be removed at this time as a high risk of failure and impact to targets.</p>		<p>Looking north at shamel ash 55, 57, 59, 61, 63, 65 to be removed.</p>	
<p>Southern magnolias 1106, 1107, 1108 proposed by the project team to be removed, are in decline due to severe soil moisture deficit.</p>		<p>Looking north at shamel ash 102, 103, 104, and 105 to be removed. Note canopy dieback in the form of live twig density decline.</p>	





Tree #	Image	Tree #	Image
<p>Looking northeast at shamel ash 461 to 475 to be retained along the east side of N. Wolfe Rd.</p>		<p>Long-lived, drought tolerant oak species like these two existing holly oaks 97 and 98 to be removed at the project site are the types of trees we should be installing as new landscaping.</p>	

**BELOW:
IMAGES FROM FOLLOW-UP SITE ASSESSMENT ON 12/8/2017**

<p>Looking north along N. Wolfe Rd. The shamel ashes, although they are referred to as “evergreen ash”, actually go deciduous to some degree, with leaf drop ranging from zero to +/- 50% of the entire foliar canopy.</p>		<p>Fruits are borne as long clusters of “keys” or “samaras” on evergreen ash specimens, extending a great distance along a stem, making it relatively difficult to determine from the ground whether bare stems are dead or are simply going through normal leaf drop and fruit drop in Fall.</p>	 <p>Note the short wispy stems that remain behind on the fruit branch clusters after the evergreen ash samaras drop to the ground. These are an indication that the woody stems in this image are alive and are actually associated with a recently-dropped fruit cluster, rather than representing a dead or dying tissue region of the canopy. In some cases, there are both dead stems and bare fruit branches mingled together throughout an evergreen ash, making determination of overall condition rating very difficult during the Fall/Winter period.</p>
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Tree #	Image	Tree #	Image
Looking east down Stevens Creek Blvd. The evergreen ash specimens along this south boundary section of the site exhibit both bare areas where fruit clusters dropped, and dead stems scattered throughout the trees, simultaneously.		A combination of dead stems and live bare fruit cluster branches extended south over Stevens Creek Blvd. (a close-up of an evergreen ash specimen in the center of the left-hand image).	

10.0 Tree Maintenance Recommendations

The following matrix shows all tree maintenance recommendations by WLCA for those trees located south of the “alternate lot west” area.

Important Notes When Reviewing Table 10.0 Below:

- Trees being removed as shown on the proposed tree disposition plan sheet P-0602 iteration 1/02/2018 are shown in parentheses in the following table (i.e. the 484 trees noted by tag number in report summary table 1.0, row 4).
- Trees recommended to be removed by WLCA due to very poor condition, extreme lean, etc. are shown in parentheses in the following table (i.e. the one-hundred thirty-six (136) WLCA-recommended removals noted by tag number in report summary table 1.0, row 5).

TABLE 10.0 UPDATED 1/15/2018

Line Number	Maintenance Action Suggested	Tree Tag Number	Phase
1	Branch endweight reduction pruning on lengthy sections of canopy	(#8, 9, 104) #414, 442	Prior to phase 1 demolition.
2	Arborist cable and/or bracing installation per ANSI A300 support system standards	(#443)	Prior to phase 1 demolition.





Line Number	Maintenance Action Suggested	Tree Tag Number	Phase
3	Verify Spring, 2018 leafout of tree. If no leafout occurs, then remove tree as "dead"	#(518), 554	
4	Arborist monitor tree for stability and for declines in vigor (pre-project trenching or other pre-demo site prep work in 2015 resulted in root damage to many of these trees, the impacts of which may be significant or severe)	(#225, 226, 228), 282, (283), (285), 454, (459), 460, 463, 465, (468), 469, 473, 475, (695), 737, (744), (865), (#1115, 1122, 1123, 1124, 1125).	2x/year.
5	Remove one of two existing codominant mainstems at the fork, by an ISA Certified Arborist, per ANSI A300 pruning standards.	(#246)	Prior to phase 1 demolition.
6	WLCA Field Update 1/9/2018: Remove tree as soon as possible (now) as an "imminent risk of failure and impact". Tree mainstem fork is actively splitting with visible separation of the two mainstems.	(#95)	Now.
7	Commence heavy weekly irrigation over root zone, and continue through winter. Rate of approx. 25 to 100 gallons per tree per week, year-round. Consider use of aerial based sprinkler systems and/or aerial based misting systems to be installed in redwood specimens.	(All trees to remain)	As soon as possible, continuing 1x/week minimum, year-round.





Line Number	Maintenance Action Suggested	Tree Tag Number	Phase
8	Add 4 inch layer of chipper truck type wood chips over soil to reduce irrigation water evaporation. Pull mulch out at least 6 to 12 inches away from trunk edges to avoid moisture retention at root crown.	(All trees to remain)	Prior to start heavy periodic irrigation.
9	Remove electrical utility company guy wire and strapping that is surrounding the trunk.	(#669)	Call local utility representatives to schedule this tree for removal. Currently in 10% overall condition as of 1/9/2018.




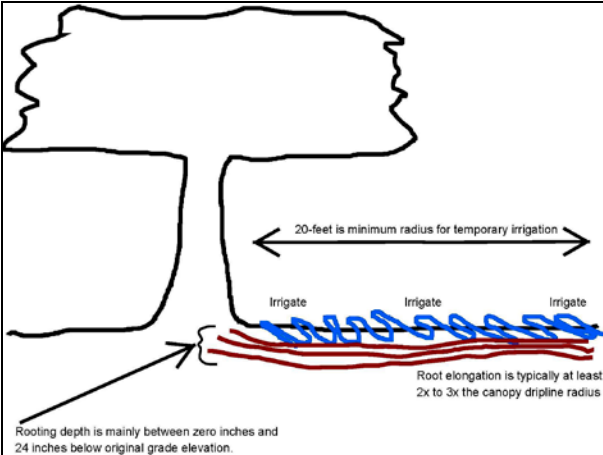
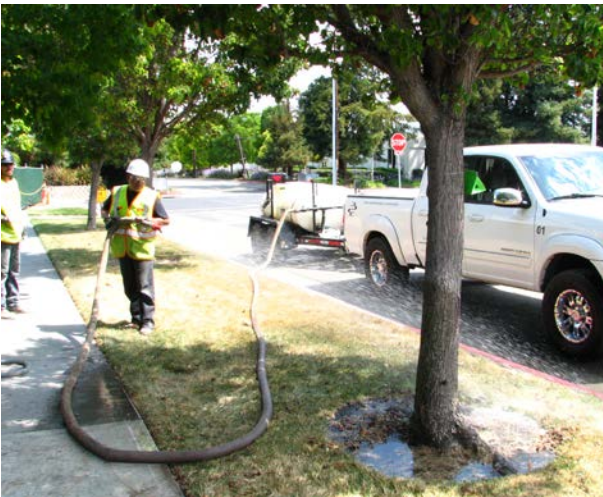
11.0 Tree Protection Recommendations

Line Number	Tree Protection Action	Sample Image	Tree Tag Numbers
1	<p style="text-align: center;">ROOT PROTECTION FENCE –</p> <p>5-foot high chain link, hung on 7-foot long 2-inch diameter iron tube posts driven 24- inches into the ground, at max. 6-foot spacing on-center.</p>		<p>First grouping below is the initial list of trees to be retained per tree disposition sheet P-0602 iteration 1/02/2018.</p> <p>The second grouping below is the list of trees suggested to be removed by WLCA that are either dead or in very poor overall condition (which may end up being retained and protected in-place, at least temporarily, in order to maintain screening benefits during project construction, until final phase landscape renovation work commences).</p>
			<p>#(11-13), (15-36), (40-50), 53, 54, 56, 187, 219, 221, 222, 263, 270, (276-280), 282, 284, (290-292), 329, 330, 428, 429, (431-433) 437, 442, 452, 454, (456-458), 461, (463-466), (469-475), 520, (524-535), (537-541), 544, 546, 548, 551, 552, 554, 558, 560, 561, 563, 565, (571-591), (593-596), (599-602), 608, 609, (611-627), 630, 632, 633, 638, (640-645), (647-652), (655-658), (661-669), (672-674), 676, (678-682), 686, 708, 710, 712, 713, 715, 723, 725, 727, 729, 730, 734, 737, 738, (740-743), (746-748), (750-757), (759-762), (765-767), (769-809), 811, (816-820), (822-826), (828-833), 835, (837-842), (844-852), (854-860), (862-864), (867-872), 874, 875.</p>
			<p>#90, 91, 95, 100, 113, 114, 123, 145, 173, , 177, 184, 189, 190, 192, 195, 214, 281, 283, 293, 315, 332, 333, 335, 363, 364, 365, 367, 377, 396, 397, 406, 407, 430, 434, 435, 440, 441, 462, 467, 468, 478, 501, 515, 516, 522, 523, 536, 592, 597, 598, (603-608), 610, (628-630), 631, (633-637), 639, 646, 648, 653, 654, (659-661), (669-672), 675, 677, (683-685), 698, 701, 702, (704-709), 711, 714, (716-722), (724-728), 735, 736, 758, 763, 764, 768, 777, 780, 786, 787, 794, 804, 807, 808, 810, (811-817), 821, 825, 827, 834, 836, 840, 846, 852, (853-856), 867, 873.</p>



Line Number	Tree Protection Action	Sample Image	Tree Tag Numbers
2	<p>TRUNK BUFFER –</p> <p>20 wraps of orange plastic with wood boards overlaid and duct taped in place around the wood.</p> <p>Use an entire roll of orange plastic snow fencing wrap for each single tree being retained.</p>		<p>Wrap all trees being retained that are directly adjacent to construction work (construction crew can exclude any trees being retained that are located behind “companion trees”, where the companion trees act as de-facto barriers to block construction work contact with the mainstem (trunk).</p>
3	<p>WOOD CHIP MULCH –</p> <p>4 inch thick layer of chipper truck type wood chips (not bark chips).</p> <p>Place over entire open soil root zone areas, and pull 6 to 12 inches away from tree trunk edges.</p>		<p>Apply wood chips where possible around all open soil root systems of trees to remain.</p>




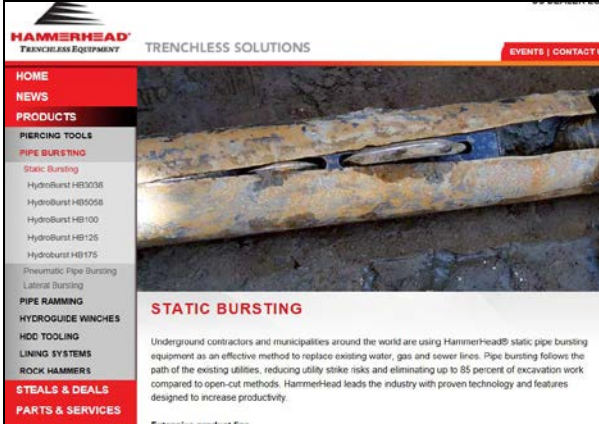
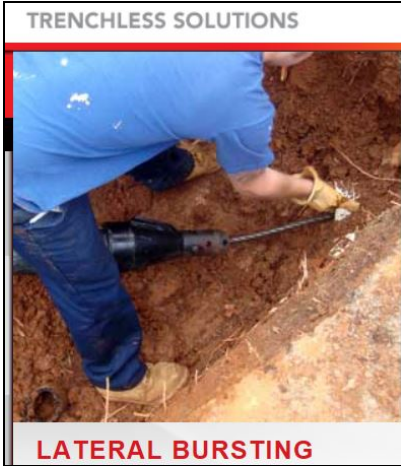
Line Number	Tree Protection Action	Sample Image	Tree Tag Numbers
4	<p>IRRIGATION TEMPORARY</p> <p>Heavy 1x/week</p> <p>25 to 100 gallons per tree, per week, minimum, year-round.</p> <p>Use over-grade systems only, such as PVC piping set over the ground (image above right), or hand-watering via tow-behind tank and spray apparatus with fire hose (image below right).</p>	  	<p>Where possible, over all open soil root zones of all trees to remain. Note that roots grow laterally outward from the trunk of a tree to far beyond the canopy dripline, at sites where there is soil root zone available for the roots to do so.</p> <p>Therefore, irrigation is often very beneficial when performed over open soil areas that are far from the trunk edges of trees.</p>







Line Number	Tree Protection Action	Sample Image	Tree Tag Numbers
5	<p>ROOT PRUNING</p> <p>Back-dig around exposed roots, and prune at right angle to root growth direction, removing all broken, shattered, or otherwise damaged sections of roots.</p> <p>Use only blades with large teeth that are specifically labelled as “pruning” blades or “green wood” blades (see image at right).</p>	 	<p>Where applicable during excavation, trenching, grading, etc.</p>



Line Number	Tree Protection Action	Sample Image	Tree Tag Numbers
6	<p>HARDSCAPE REMAIN OR USE RUBBER PANELS</p> <p>Allow existing hardscape areas to remain where possible, to avoid root loss and root damage (see image at right).</p> <p>Grind down areas where slab displacement has occurred, using a diamond saw.</p> <p>Replace using screed and rubber sidewalk components where possible, to allow for future upward displacement “bend” of the material (see image, below right, from a Stanford University rubber sidewalk project installed by McGuire & Hester).</p> <p>Arborist monitoring required during demolition within 20 feet of trunks.</p>		(Various, to be determined).

Line Number	Tree Protection Action	Sample Image	Tree Tag Numbers
7	<p>TRENCHLESS SOLUTIONS FOR UTILITY UPGRADES</p> <p>For all trenching, including utilities, drain pipes, downspout drain lines, etc., for all items to be installed within 20 feet of trunks of trees being retained, the following are viable methods used in the industry to go “trenchless” without having to cut through lateral woody tree root systems (see images at right).</p> <p>Solutions include:</p> <p>A: Directional bore (see image at right).</p> <p>B: Static pipe bursting, which allows for pipe diameter increases (see image at right).</p> <p>C: Pull-through pipe burst (“lateral bursting”) using a pull-through “pig” (see image at right, courtesy of HTEC).</p>	 <p>Above: Directional bore near tree being retained, Hetch Hetchy system water delivery pipe (image copyright WLCA 2017).</p>  <p>Above: Static bursting for pipe diameter upgrade. Photo courtesy of Hammerhead Trenchless Equipment Co. (HTEC).</p>  <p>LATERAL BURSTING</p>	<p>(Various, to be determined).</p> <p>For areas where these items are to be aligned at distances greater than 20 linear feet offset (radius) from trunk edges of trees being retained, standard trenching methods and materials can be used (e.g. bucket excavator, Ditch Witch trenching machines, etc.).</p> <p>Trenchless solution equipment is available locally in the San Francisco Bay Area from:</p> <p>Ditch Witch Bay Area Office 8240 Enterprise Drive Newark, CA Phone: (510) 657-5722</p>



Line Number	Tree Protection Action	Sample Image	Tree Tag Numbers
8	<p>IRRIGATION PERMANENT Use no-dig over-grade tubing, or max. of "6 inch cover within 20 feet of trees" as callout specification on all plans.</p> <p>There are typically two methods utilized for these types of no-dig situations:</p> <p>a: Flex tubing laid over grade, with either built-in emitters, or with a minimum of two (2) high-flow type 1/2" diameter adjustable flood bubblers that emit up to 2 gallons per minute flow rate, set around each single newly installed tree (see images at right).</p> <p>b: UV-resistant "UVR" PVC piping that can be laid directly over-grade in full sun. This material is not vandal-resistant, and would probably need to be shielded with a sleeve of steel conduit or other tubing to protect the pipe from crushing or other vandal-related damage (see image at right).</p>	 <p>Pacific Plastics 1/2 Inch Sch. 40 UV Resistant PVC Pipe 1/2 SCH-40 UVR RESISTANT PIPE SKU# 07034055</p> <ul style="list-style-type: none"> • SCH-40 PVC pipe • For use with reclaimed water systems • Special additives are used in the compound to make the pipe Ultra Violet Resistant • Solvent weld connections for pressure and non-pressure applications • 20 feet in length with a belled end 	  <p>Toro 0-2 GPM Flood Bubbler with Fully Adjustable, Full Circle ★★★★★ (3) - Water & Garden Questions & Answers (2) \$0.96 each</p> <p>(Various, to be determined).</p> <p>For areas where irrigation pipes are to be aligned at distances greater than 20 linear feet offset (radius) from trunk edges of trees being retained, standard solid PVC irrigation pipe trenching can be specified (e.g. 18 inches min. cover depth, etc.)</p>



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ISA Qualified Tree Risk Assessor

ISA Certified Arborist #WE-3172A

12.0 Attached, Tree Data Charts, Updated 1/15/2018 (WLCA)

13.0 Attached, Tree Map Sheet #P-0602, Updated 01/02/2018

14.0 Attached, Tree Fact Sheet (Coast Redwood)

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-124/48)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Ratings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod, Good, Etc.)	Loaded Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown by Existing Roots (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with trunk inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
1	X			18.0						18.0		Shamel ash	<i>Fraxinus uhdei</i>	30/18	20/30	25% very poor	poor			6								
2	X			10.9						10.9		Shamel ash	<i>Fraxinus uhdei</i>	25/20	50/35	40% poor	moderate			7								
3	X			18.9						18.9		Shamel ash	<i>Fraxinus uhdei</i>	30/25	60/45	50% fair	moderate											
4	X			16.6						16.6		Shamel ash	<i>Fraxinus uhdei</i>	35/30	55/80	57% fair	moderate											
5	X			22.0						22.0		Shamel ash	<i>Fraxinus uhdei</i>	45/45	75/60	66% fair	good			12								
6	X			18.3						18.3		Shamel ash	<i>Fraxinus uhdei</i>	35/15	50/35	43% poor	moderate											
7	X			27.6						27.6		Monterey pine	<i>Pinus radiata</i>	55/30	65/65	65% fair	moderate											Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 47% or "poor".
8	X			19.9						19.9		Shamel ash	<i>Fraxinus uhdei</i>	55/30	70/80	64% fair	moderate	W									Needs endweight reduction pruning	Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 40% or "poor".
9	X			26.2						26.2		Shamel ash	<i>Fraxinus uhdei</i>	55/40	60/50	55% fair	poor to mod					GR					Needs endweight reduction pruning	
10	X			27.0						27.0		Shamel ash	<i>Fraxinus uhdei</i>	55/30	60/50	56% fair	poor to mod	N									Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 40% or "poor".	
11				28.8						28.8		Shamel ash	<i>Fraxinus uhdei</i>	55/30	60/50	60% fair	moderate	S				GR					Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 37% or "poor".	
12				20.2						20.2		Shamel ash	<i>Fraxinus uhdei</i>	55/25	55/50	53% fair	poor to mod	E									Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 26% or "very poor". Trees in very poor condition are especially susceptible to...	
13				22.2						22.2		Shamel ash	<i>Fraxinus uhdei</i>	55/25	60/50	56% fair	poor to mod	S									Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 37% or "poor".	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desire to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk "Diameter @ 64" A.G. (112-131-148)	"Protected Tree" per City of Cupertino (10" DBH stems, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Ratings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barber Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLSA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
14	X			24.7						24.7		Shamel ash	<i>Fraxinus uhdei</i>	60/28	60/60	60% fair	moderate	N										Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 40% or "poor".	
15				24.6						24.6		Shamel ash	<i>Fraxinus uhdei</i>	60/30	60/45	55% fair	moderate	N											
16				20.6						20.6		Shamel ash	<i>Fraxinus uhdei</i>	55/30	55/55	55% fair	moderate	N											Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 42% or "poor".
17				17.7						17.7		Shamel ash	<i>Fraxinus uhdei</i>	45/25	0/0	0% dead (not verified)		S											Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 36% or "poor".
18				31.6						31.6		Shamel ash	<i>Fraxinus uhdei</i>	60/30	65/48	59% fair	moderate	N				GR		10 to 12					Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 46% or "poor".
19				18.2						18.2		Shamel ash	<i>Fraxinus uhdei</i>	45/25	60/60	55% fair	moderate	S											Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 36% or "poor".
20				21.5						21.5		Shamel ash	<i>Fraxinus uhdei</i>	50/35	55/65	55% fair	poor to mod												
21				17.0						17.0		Shamel ash	<i>Fraxinus uhdei</i>	35/20	50/60	55% fair	moderate	S					GR						
22				32.3						32.3		Shamel ash	<i>Fraxinus uhdei</i>	55/50	75/65	70% good	good	NE											
23				24.5						24.5		Shamel ash	<i>Fraxinus uhdei</i>	55/30	65/40	50% fair	moderate	S		30			GR						Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 46% or "poor".
24				29.7						29.7		Shamel ash	<i>Fraxinus uhdei</i>	55/40	65/50	60% fair	moderate	N					GR						
25				20.7						20.7		Shamel ash	<i>Fraxinus uhdei</i>	50/30	55/45	50% fair	moderate	SE		30		serious GR							Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 50% or "fair".
26				20.2						20.2		Shamel ash	<i>Fraxinus uhdei</i>	35/35	50/50	50% fair	moderate	N					GR						Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 46% or "poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (152-23448)	"Protected Tree" per City of Cupertino Ordinance (10" DBH stems, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Leaned Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barber Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
27				25.8						25.8		Shamel ash	<i>Fraxinus uhdei</i>	55/35	65/50	57% fair	moderate	S										
28				36.9						36.9		Shamel ash	<i>Fraxinus uhdei</i>	90/40	75/45	60% fair	good	N				GR						Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 45% or "poor".
29				32.3						32.3		Shamel ash	<i>Fraxinus uhdei</i>	60/35	70/50	60% fair	good	S				GR						Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 60% or "fair".
30				29.5						29.5		Shamel ash	<i>Fraxinus uhdei</i>	50/40	60/55	59% fair	good	NE										
31				6.3						6.3		Shamel ash	<i>Fraxinus uhdei</i>	18/10	40/30	35% poor	moderate	S				BRC						Stunted Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 25% or "very poor". Trees in very poor overall condition are generally considered good candidates for removal from the landscape, since
32				17.9						17.9		Shamel ash	<i>Fraxinus uhdei</i>	55/35	60/40	50% fair	moderate	N										
33				26.0						26.0		Shamel ash	<i>Fraxinus uhdei</i>	55/35	60/50	57% fair	moderate					GR					Diameter estimated. Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 40% or "poor".	
34				24.0						24.0		Shamel ash	<i>Fraxinus uhdei</i>	50/25	50/40	45% poor	?	S					0				Tree out of leaf. Condition estimated. Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 40% or "poor".	
35				23.3						23.3		Shamel ash	<i>Fraxinus uhdei</i>	55/25	60/55	57% fair	moderate	N										
36				26.6						26.6		Shamel ash	<i>Fraxinus uhdei</i>	55/45	65/60	63% fair	moderate											
37	X			32.9						32.9		Shamel ash	<i>Fraxinus uhdei</i>	90/35	70/80	65% fair	good	N										
38	X			18.2						18.2		Shamel ash	<i>Fraxinus uhdei</i>	50/25	65/50	56% fair	moderate	S										
39	X			23.0						23.0		Shamel ash	<i>Fraxinus uhdei</i>	55/40	65/50	57% fair	good	N									Diameter estimated. Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 45% or "poor".	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desire to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-23+468)	"Protected Tree" per City of Cupertino Ordinance (10" DBH stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Any Rooting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLSA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
40				28.2						28.2		Shamel ash	<i>Fraxinus uhdei</i>	55/45	60/45	52% fair	moderate	S		25		GR						Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 35% or "poor".
41				18.3						18.3		Shamel ash	<i>Fraxinus uhdei</i>	50/20	60/50	65% fair	moderate	NE										
42				6.5						6.5		Shamel ash	<i>Fraxinus uhdei</i>	20/8	30/25	28% very poor	poor	S	S									Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 35% or "poor".
43				24.0						24.0		Shamel ash	<i>Fraxinus uhdei</i>	55/30	65/60	63% fair	good	N				GR						Diameter estimated.
44				30.7						30.7		Shamel ash	<i>Fraxinus uhdei</i>	50/35	65/45	55% fair	good	S				GR						
45				18.0						18.0		Shamel ash	<i>Fraxinus uhdei</i>	50/20	50/50	50% fair	poor to mod	N										Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 40% or "poor".
46				30.5						30.5		Shamel ash	<i>Fraxinus uhdei</i>	55/35	65/45	55% fair	good	S				GR		7 to 9				
47				28.0						28.0		Shamel ash	<i>Fraxinus uhdei</i>	55/30	70/60	67% fair	good	N										Diameter estimated.
48				31.6						31.6		Shamel ash	<i>Fraxinus uhdei</i>	55/30	60/55	57% fair	mod to good	S				GR						Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 35% or "poor".
49				24.5						24.5		Shamel ash	<i>Fraxinus uhdei</i>	55/25	55/55	55% fair	moderate	N										
50				39.5						39.5		Shamel ash	<i>Fraxinus uhdei</i>	55/40	55/55	55% fair	moderate	E				serious GR						Tree appears to be declining in live twig density due to prolonged Bay Area drought conditions. Current condition is approximately 35% or "poor".
51	—	REMOVED AS OF 2017		45.7						45.7		Monterey pine	<i>Pinus radiata</i>	55/45	25/25	25% very poor	poor									Bark beetle issues	Tree removed in 2017 due to winter storm breakages.	
52	—	REMOVED AS OF 2017		25.9						25.9		Monterey pine	<i>Pinus radiata</i>	55/30	40/40	40% poor	poor											Tree removed in 2017 due to winter storm breakages.

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desires to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-23448)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Concomitant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCOA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
53				16.9						16.9		Shamel ash	<i>Fraxinus uhdei</i>	45/25	65/60	65% fair	good	E	E								80% Fair. Same condition as previously noted in past years.	
54				31.6						31.6		Shamel ash	<i>Fraxinus uhdei</i>	55/40	60/60	65% fair	moderate	W				GR					Tree appears to be declining from prolonged Bay Area drought conditions. Current condition is approximately 35% or "poor".	
55	X			21.8						21.8		Shamel ash	<i>Fraxinus uhdei</i>	50/25	65/60	80% fair	good											
56				18.3						18.3		Shamel ash	<i>Fraxinus uhdei</i>	50/20	55/55	65% fair	moderate	W										Tree declining moderately. Overall condition is now roughly 60% (Fair).
57	X			19.5						19.5		Shamel ash	<i>Fraxinus uhdei</i>	55/30	65/60	65% fair	good	E										
58	X			26.4						26.4		Shamel ash	<i>Fraxinus uhdei</i>	55/30	60/65	68% fair	moderate	W										
59	X			33.8						33.8		Shamel ash	<i>Fraxinus uhdei</i>	55/30	60/60	65% fair	good	E						11				
60	X			24.9						24.9		Shamel ash	<i>Fraxinus uhdei</i>	45/35	65/55	60% fair	good	W										
61	X			24.4						24.4		Shamel ash	<i>Fraxinus uhdei</i>	55/35	60/60	60% fair	moderate	E										
62	X			27.9						27.9		Shamel ash	<i>Fraxinus uhdei</i>	55/25	50/50	60% fair	poor to mod	W										
63	X			31.5						31.5		Shamel ash	<i>Fraxinus uhdei</i>	55/40	70/65	68% fair	good											
64	X			20.8						20.8		Shamel ash	<i>Fraxinus uhdei</i>	40/25	50/50	60% fair	poor to mod	W										
65	X			20.7						20.7		Shamel ash	<i>Fraxinus uhdei</i>	50/25	65/63	65% fair	good	E										

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
66	X			37.8						37.8		Shamel ash	<i>Fraxinus uhdei</i>	60/25	70/63	66% fair	good	W											
67	X			18.3						18.3		Shamel ash	<i>Fraxinus uhdei</i>	55/25	65/65	65% fair	moderate	W											
68	X			41.0						41.0		Shamel ash	<i>Fraxinus uhdei</i>	55/50	60/55	58% fair	mod to good	NW					possible bark inclusion issues						
69	X			19.4						19.4		holly oak	<i>Quercus ilax</i>	45/20	60/60	60% fair	moderate	W										70% overall condition "good".	
70	X			13.2						13.2		holly oak	<i>Quercus ilax</i>	25/20	60/60	60% fair	moderate	W										66% overall condition "fair".	
71	X			40.8						40.8		Shamel ash	<i>Fraxinus uhdei</i>	60/45	65/55	60% fair	good							10					
72	X			24.3						24.3		Shamel ash	<i>Fraxinus uhdei</i>	55/25	55/60	50% fair	moderate	E				serious GR							
73	X			28.2						28.2		Shamel ash	<i>Fraxinus uhdei</i>	55/35	50/50	50% fair	poor	W						16					
74	X			28.0						28.0		Shamel ash	<i>Fraxinus uhdei</i>	55/30	60/60	60% fair	moderate	E											
75	X			21.4						21.4		Shamel ash	<i>Fraxinus uhdei</i>	40/25	50/50	50% fair	moderate	W											
76	X			20.2						20.2		Shamel ash	<i>Fraxinus uhdei</i>	50/18	40/50	47% poor	poor to mod	E											
77	X			15.8						15.8		Shamel ash	<i>Fraxinus uhdei</i>	45/15	40/30	35% poor	poor	W											
78	X			17.0						17.0		Shamel ash	<i>Fraxinus uhdei</i>	55/35	65/40	50% fair	moderate					serious GR							

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
79	X			21.2						21.2		Shamel ash	<i>Fraxinus uhdei</i>	55/25	55/55	55% fair	poor to mod	W				GR							
80	X			28.2						28.2		Shamel ash	<i>Fraxinus uhdei</i>	55/35	60/50	55% fair	moderate	E											
81	X			24.7						24.7		Shamel ash	<i>Fraxinus uhdei</i>	55/35	55/50	53% fair	moderate	W											
82	X			19.0						19.0		Shamel ash	<i>Fraxinus uhdei</i>	55/20	45/50	49% poor	poor to mod	E											
83	X			17.8						17.8		Shamel ash	<i>Fraxinus uhdei</i>	55/30	60/55	57% fair	moderate	W											
84	X			21.2						21.2		Shamel ash	<i>Fraxinus uhdei</i>	35/30	55/55	55% fair	moderate	E											
85	X			20.3						20.3		Shamel ash	<i>Fraxinus uhdei</i>	55/30	65/60	65% fair	moderate to good	W											
86	X			23.2						23.2		Shamel ash	<i>Fraxinus uhdei</i>	55/35	65/50	58% fair	good					GR							
87	X			22.8						22.8		Shamel ash	<i>Fraxinus uhdei</i>	55/35	65/55	60% fair	mod to good	NW											
88	X			5.9	5.0	4.9				15.8		Monterey pine	<i>Pinus radiata</i>	9/11	65/65	65% fair	moderate										ID of species not verified		
89	X			23.5						23.5		Canary Island pine	<i>Pinus canariensis</i>	45/18	80/75	78% good	good						0 to 4					70% overall condition "good"	
90	X	X		16.0						16.0		Monterey pine	<i>Pinus radiata</i>	18/25	30/30	30% poor	moderate					GR					ID of species not verified. Tree appears to be infected by pine pitch canker fungus.	25% overall condition "very poor"	
91	X	X		20.4						20.4		Monterey pine	<i>Pinus radiata</i>	25/25	40/40	40% poor	poor to mod	W									Tree has bark beetle issues and/or pine pitch canker infection.	25% overall condition "very poor"	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desires to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Root Rotting Roots) (SR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
92	X	X		15.5						15.5		carrotwood, or carob tree	<i>Cupenlopa anacardioides, or Ceratonia siliqua</i>	20/15	25/10	15% very poor	poor to mod	W					0 to 8				30% overall condition "poor"	
93	X			11.8						11.8		carrotwood, or carob tree	<i>Cupenlopa anacardioides, or Ceratonia siliqua</i>	20/15	50/30	45% poor	moderate						4 to 7				30% overall condition "poor"	
94	X			18.0						18.0		carrotwood, or carob tree	<i>Cupenlopa anacardioides, or Ceratonia siliqua</i>	20/20	45/35	40% poor	poor to mod						6 to 12				30% overall condition "poor"	
95	X	X		6.0	6.0	6.0	6.0	6.0	6.0	35.0		carrotwood, or carob tree	<i>Cupenlopa anacardioides, or Ceratonia siliqua</i>	20/20	65/10	30% poor	good						1			Active crack is opened. Tree considered "extreme risk" of failure. Remove ASAP.	5% overall condition "very poor"	
96	X			34.0						34.0		Shamel ash	<i>Fraxinus uhdei</i>	40/25	65/65	57% fair	good								X		45% overall condition "very poor"	
97	X			15.3						15.3		holly oak	<i>Quercus ilex</i>	20/25	75/75	75% good	good											80% overall condition "good"
98	X			14.0						14.0		holly oak	<i>Quercus ilex</i>	25/25	75/75	75% good	good											70% overall condition "good"
99	X			11.6						11.6		holly oak	<i>Quercus ilex</i>	22/20	70/70	70% good	moderate											78% overall condition "good"
100	X	X		12.3						12.3		Monterey pine	<i>Pinus radiata</i>	18/15	50/50	50% fair	moderate	SE	18								ID of species not verified.	20% overall condition "very poor"
101	X			16.0						16.0		Monterey pine	<i>Pinus radiata</i>	28/20	50/50	50% fair	moderate											30% overall condition "poor"
102	X			25.9						25.9		Shamel ash	<i>Fraxinus uhdei</i>	50/35	50/35	40% poor	moderate				X			12				
103	X			24.7						24.7		Shamel ash	<i>Fraxinus uhdei</i>	55/35	50/40	45% poor	moderate	E			X			9				
104	X			16.5						16.5		Shamel ash	<i>Fraxinus uhdei</i>	55/30	55/50	50% fair	moderate	E	E		X						Needs endweight reduction pruning	

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105	X				16.0						16.0		Shamel ash	<i>Fraxinus uhdei</i>	45/25	45/45	45% poor	moderate	E			X		4					
106	X				21.7						21.7		Shamel ash	<i>Fraxinus uhdei</i>	50/35	60/60	65% fair	good				X				X			
107	X				19.4						19.4		Shamel ash	<i>Fraxinus uhdei</i>	50/25	60/45	55% fair	moderate	S			X							
108	X				15.9						15.9		Shamel ash	<i>Fraxinus uhdei</i>	35/30	55/55	55% fair	poor to mod											
109	X				14.4						14.4		Shamel ash	<i>Fraxinus uhdei</i>	35/25	40/40	40% poor	poor to mod	N										
110	X				18.9						18.9		Shamel ash	<i>Fraxinus uhdei</i>	45/30	40/30	35% poor	poor							11				
111	X	X			29.7						29.7		Monterey pine	<i>Pinus radiata</i>	45/35	60/65	57% fair	moderate										Measured at 2 feet.	30% overall condition "poor"
112	X	X			19.1						19.1		Monterey pine	<i>Pinus radiata</i>	25/18	0/0	0% Dead												0% (Dead)
113	X	X			28.0	15.0					43.0		Monterey pine	<i>Pinus radiata</i>	30/20	25/25	25% very poor	poor	W								Bark beetle issues and/or pine pitch canker fungus.	0% (Dead)	
114	X	X			41.0						41.0		Monterey pine	<i>Pinus radiata</i>	35/35	55/45	50% fair	moderate	S								Measured at 2 feet.	5% overall condition "very poor"	
115	X				19.8						19.8		Shamel ash	<i>Fraxinus uhdei</i>	50/30	50/40	43% poor	poor to mod	E							X			
116	X				12.7						12.7		Shamel ash	<i>Fraxinus uhdei</i>	35/25	45/50	47% poor	poor to mod								X			
117	X				14.4						14.4		Shamel ash	<i>Fraxinus uhdei</i>	35/25	40/45	45% poor	poor to mod								X			

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118	X			7.9						7.9		Shamel ash	<i>Fraxinus uhdei</i>	25/15	30/30	30% poor	poor													
119	X			10.3						10.3		Shamel ash	<i>Fraxinus uhdei</i>	25/20	45/50	48% poor	poor to mod	E												
120	X			11.4						11.4		Shamel ash	<i>Fraxinus uhdei</i>	25/20	40/30	37% poor	poor to mod	E												
121	X			10.9						10.9		Shamel ash	<i>Fraxinus uhdei</i>	30/20	60/50	57% fair	mod to good	E												
122	X			8.3						8.3		Shamel ash	<i>Fraxinus uhdei</i>	25/15	40/30	30% poor	poor		E			GR								
123	X	X		30.1						30.1		coast redwood	<i>Sequoia sempervirens</i>	60/25	30/30	30% poor	poor									X	X		20% overall condition "very poor"	
124	X			22.9						22.9		Shamel ash	<i>Fraxinus uhdei</i>	55/40	60/50	55% fair (?) Tree is leafless.													Tree condition needs to be verified after spring leafout.	
125	X			24.9						24.9		Shamel ash	<i>Fraxinus uhdei</i>	60/30	40/40	40% poor	poor													
126	X			12.0						12.0		Shamel ash	<i>Fraxinus uhdei</i>	50/20	30/30	30% poor	poor	E												
127	X			25.1						25.1		Shamel ash	<i>Fraxinus uhdei</i>	55/35	45/55	50% fair	moderate	E	E											
128	X			19.4						19.4		Shamel ash	<i>Fraxinus uhdei</i>	50/35	40/50	42% poor	poor	E												
129	X			4.0						4.0		fern pine	<i>Podocarpus gracillor</i>	15/3	70/50	55% fair	moderate												Located at P1 parking level.	
130	X			4.0						4.0		fern pine	<i>Podocarpus gracillor</i>	15/3	70/50	55% fair	moderate												Located at P1 parking level.	

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131	X			4.2						4.2		fern pine	<i>Podocarpus gracillor</i>	15/3	70/50	55% fair	moderate										X		Located at P1 parking level.		
132	X			4.4						4.4		fern pine	<i>Podocarpus gracillor</i>	15/3	70/50	55% fair	moderate											X		Located at P1 parking level.	
133	X			4.3						4.3		fern pine	<i>Podocarpus gracillor</i>	15/3	70/50	55% fair	moderate											X		Located at P1 parking level.	
134	X			4.0						4.0		fern pine	<i>Podocarpus gracillor</i>	15/3	70/50	55% fair	moderate											X		Located at P1 parking level.	
135	X			4.6						4.6		fern pine	<i>Podocarpus gracillor</i>	15/3	70/50	55% fair	moderate											X		Located at P1 parking level.	
136	X			4.7						4.7		fern pine	<i>Podocarpus gracillor</i>	15/3	70/50	55% fair	moderate											X		Located at P1 parking level.	
137	X			4.6						4.6		fern pine	<i>Podocarpus gracillor</i>	15/3	70/50	55% fair	moderate											X		Located at P1 parking level.	
138	X			7.8	4.9					12.7		Ficus species	<i>Ficus sp.</i>	20/12	70/50	55% fair	moderate											X		Located at P1 parking level.	
139	X			6.8	4.1					10.9		Ficus species	<i>Ficus sp.</i>	20/12	70/50	55% fair	moderate											X		Located at P1 parking level.	
140	X			6.8						6.8		Ficus species	<i>Ficus sp.</i>	20/12	70/50	55% fair	moderate											X		Located at P1 parking level.	
141	X			5.9	3.7					9.6		Ficus species	<i>Ficus sp.</i>	20/12	70/50	55% fair	moderate											X		Located at P1 parking level.	
142	X			5.0	4.3					9.3		Ficus species	<i>Ficus sp.</i>	20/12	70/50	55% fair	moderate											X		Located at P1 parking level.	
143	X			5.0	4.1					9.1		Ficus species	<i>Ficus sp.</i>	20/12	70/50	55% fair	moderate											X		Located at P1 parking level.	

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144	X			5.0	4.6	4.4				14.0		Ficus species	<i>Ficus sp.</i>	20/12	70/50	55% fair	moderate				X						Located at P1 parking level.		
145	X	X		24.7						24.7		Monterey pine	<i>Pinus radiata</i>	35/25	60/80	60% fair	moderate											25% overall condition "very poor"	
146	X			8.1						8.1		evergreen pear	<i>Pyrus kawakamii</i>	20/15	60/50	57% fair	moderate												
147	X			7.2						7.2		evergreen pear	<i>Pyrus kawakamii</i>	15/12	40/40	40% poor	poor	W											
148	X			42.2						42.2		coast redwood	<i>Sequoia sempervirens</i>	60/25	80/80	80% good	good									X		80% overall condition "good"	
149	X			28.0						28.0		coast redwood	<i>Sequoia sempervirens</i>	55/15	35/45	40% poor	poor								X	X		30% overall condition "poor"	
150	X			4.0	3.1					7.1		flowering cherry cultivar	<i>Prunus serrulata</i> Cult.	12/8	30/30	30% poor	? Out of leaf					BRC						Needs root crown excavation. Condition not verified (tree out of leaf during survey).	
151	X			27.7						27.7		coast redwood	<i>Sequoia sempervirens</i>	60/20	80/80	66% fair	good						0 to 3		X	X		50% overall condition "fair".	
152	X			31.2						31.2		coast redwood	<i>Sequoia sempervirens</i>	55/15	60/80	60% fair	moderate									X		65% overall condition "fair".	
153	X			29.5						29.5		coast redwood	<i>Sequoia sempervirens</i>	55/15	60/80	60% fair	moderate									X		65% overall condition "fair".	
154	X			18.0						18.0		coast redwood	<i>Sequoia sempervirens</i>	50/15	70/70	70% good	moderate									X		75% overall condition "good"	
155	X			20.0						20.0		coast redwood	<i>Sequoia sempervirens</i>	50/15	70/70	70% good	moderate									X		75% overall condition "good"	
156	X			27.4						27.4		coast redwood	<i>Sequoia sempervirens</i>	60/18	75/75	76% good	good									X		85% overall condition "fair".	

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157	X			29.0						29.0		coast redwood	<i>Sequoia sempervirens</i>	60/18	70/70	70% good	moderate								X		65% overall condition "fair".	
158	X			27.2						27.2		coast redwood	<i>Sequoia sempervirens</i>	60/15	50/40	40% poor	poor								X	Root system severed during ADA ramp installation.	55% overall condition "fair"	
159	X			34.9						34.9		coast redwood	<i>Sequoia sempervirens</i>	70/25	60/40	48% poor	poor to mod								X	Root system severed during ADA ramp installation.	35% overall condition "poor".	
160	X			16.2						16.2		fern pine	<i>Podocarpus gracillor</i>	55/12	70/20	35% poor	moderate				X			3			50% overall condition "fair".	
161	X			14.6						14.6		fern pine	<i>Podocarpus gracillor</i>	50/6	40/20	27% very poor	poor				X			17			45% overall condition "poor".	
162	X			11.1						11.1		tree species out of leaf	<i>Genus species</i>	45/16	50/25	32% poor	poor	S	S					At various elevations				
163	X			21.5						21.5		Shamel ash	<i>Fraxinus uhdei</i>	45/30	30/30	30% poor	poor	E						9	X			
164	X			18.8						18.8		Shamel ash	<i>Fraxinus uhdei</i>	50/30	35/35	35% poor	poor									X		
165	X			21.4						21.4		Shamel ash	<i>Fraxinus uhdei</i>	50/30	30/30	30% poor	poor							6	X			
166	X	X		16.9						16.9		Shamel ash	<i>Fraxinus uhdei</i>	35/25	25/25	25% very poor										X		
167	X			21.6						21.6		Shamel ash	<i>Fraxinus uhdei</i>	40/25	30/30	30% poor	poor									X		
168	X			12.1						12.1		Shamel ash	<i>Fraxinus uhdei</i>	35/20	50/40	45% poor	poor to mod									X		
169	X	X		20.1						20.1		Shamel ash	<i>Fraxinus uhdei</i>	40/25	25/25	25% very poor	very poor									X		

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Leaked Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown by Existing Roots (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018		
170	X			25.9						25.9		Shamel ash	<i>Fraxinus uhdei</i>	55/30	55/40	45% poor	poor					severe GR			X					
171	X			40.2						40.2		coast redwood	<i>Sequoia sempervirens</i>	90/25	80/80	80% good	moderate									X	X		10/18 75% overall condition.	
172	X			21.2						21.2		Shamel ash	<i>Fraxinus uhdei</i>	45/30	55/45	49% poor	poor								8					
173	X	X		27.2						27.2		coast redwood	<i>Sequoia sempervirens</i>	65/18	45/45	45% poor	poor											X		0% (Dead).
174	X			29.5						29.5		Shamel ash	<i>Fraxinus uhdei</i>	55/40	30/30	30% poor	poor											X		
175	X			26.5						26.5		Shamel ash	<i>Fraxinus uhdei</i>	55/40	50/60	55% fair	moderate											X		
176	X	X		22.5						22.5		Shamel ash	<i>Fraxinus uhdei</i>	55/40	25/30	27% very poor	very poor											X		
177	X	X		37.5						37.5		coast redwood	<i>Sequoia sempervirens</i>	65/25	55/60	58% fair	poor to mod										X	X		28% overall condition "very poor".
178	X			5.7	3.8					9.5		strawberry tree	<i>Arbutus unedo</i>	15/15	70/60	60% fair	moderate	W	W		X									30% overall condition "poor".
179	X			8.1						8.1		strawberry tree	<i>Arbutus unedo</i>	20/12	80/60	70% good	good	W	W											35% overall condition "poor".
180	X	X		21.2						21.2		Shamel ash	<i>Fraxinus uhdei</i>	55/25	15/15	15% very poor	very poor										X			
181	X	X		11.6						11.6		coast redwood	<i>Sequoia sempervirens</i>	55/6	10/10	10% very poor	very poor										X	X		5% overall condition "very poor".
182	X	X		21.2						21.2		coast redwood	<i>Sequoia sempervirens</i>	65/12	5/5	5% very poor	very poor											X		5% overall condition "very poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131-148)	"Protected Tree" per City of Cupertino (10" dbh, 10' dbh, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Concomitant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
183	X	X		13.8						13.8		Shamel ash	<i>Fraxinus uhdei</i>	45/16	20/20	20% very poor	very poor					GR				X		
184		X		11.9						11.9		Shamel ash	<i>Fraxinus uhdei</i>	45/12	5/5	5% very poor	very poor									X		
185	X	X		18.3						18.3		Shamel ash	<i>Fraxinus uhdei</i>	50/16	20/20	20% very poor	very poor									X		
186	X	X		9.7						9.7		Shamel ash	<i>Fraxinus uhdei</i>	30/12	8/8	5% very poor	very poor									X		
187				34.7						34.7		coast redwood	<i>Sequoia sempervirens</i>	55/25	60/60	60% fair	moderate									X		50% overall condition "fair".
188	X	X		12.2						12.2		dollar gum seedling	<i>Eucalyptus polyanthemos (seedling)</i>	50/20	20/20	20% very poor	very poor	N	N							X		25% overall condition "very poor".
189	X	X		18.1						18.1		coast redwood	<i>Sequoia sempervirens</i>	60/20	40/40	40% poor	poor									X		20% overall condition "very poor".
190	X	X		26.9						26.9		coast redwood	<i>Sequoia sempervirens</i>	70/25	40/40	40% poor	poor									X		25% overall condition "very poor".
191	X			17.5						17.5		dollar gum seedling	<i>Eucalyptus polyanthemos (seedling)</i>	60/35	60/60	55% fair	moderate		S									65% overall condition "fair".
192		X		22.3						22.3		coast redwood	<i>Sequoia sempervirens</i>	70/12	10/10	10% very poor	very poor											15% overall condition "very poor".
193	X			21.0						21.0		coast redwood	<i>Sequoia sempervirens</i>	70/16	50/50	50% fair	moderate											40% overall condition "poor".
194	X			20.4						20.4		dollar gum seedling	<i>Eucalyptus polyanthemos (seedling)</i>	60/20	40/40	40% poor	poor								X	X		35% overall condition "poor".
195	X	X		27.6						27.6		coast redwood	<i>Sequoia sempervirens</i>	70/20	30/30	30% poor	poor								X	X		25% overall condition "very poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131468)	"Protected Tree" per City of Cupertino (10" DBH, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Any Existing Roots) (GR)	Stem Decay (Note Elevation)	Co-dominant Mainstems with Fork Inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
196	X			19.5						19.5		coast redwood	<i>Sequoia sempervirens</i>	55/20	55/55	55% fair	moderate								X	X		66% overall condition "fair".	
197	X			30.1						30.1		coast redwood	<i>Sequoia sempervirens</i>	75/25	70/70	70% good	moderate									X	X		75% overall condition "good".
198	X			5.0						5.0		evergreen pear	<i>Pyrus kawakami</i>	15/12	40/40	40% poor	poor												Stunted.
199	X			6.0						6.0		evergreen pear	<i>Pyrus kawakami</i>	20/13	40/40	40% poor	poor					GR				X		Infected with bacterial fireblight.	
200	X	X		10.1								evergreen pear	<i>Pyrus kawakami</i>	22/20	30/20	25% very poor	moderate					GR				X		Infected with bacterial fireblight.	
201	X			16.5						16.5		evergreen pear	<i>Pyrus kawakami</i>	30/30	45/55	50% fair	moderate	N	E									Infected with bacterial fireblight.	
202	X			6.0						6.0		evergreen pear	<i>Pyrus kawakami</i>	15/12	50/40	45% poor	poor		N										
203	X	X		18.6						18.6		tulip tree (ID not verified - tree out of leaf during survey)	<i>Liriodendron tulipifera</i>	60/20	0/0	0% dead						GR						High risk of failure. Dead tree.	
204	X	X		11.2						11.2		tulip tree (ID not verified - tree out of leaf during survey)	<i>Liriodendron tulipifera</i>	45/15	? Tree out of leaf. May be dead.	?						GR						High risk of failure. Tree may be dead (verify after spring leafout).	
205	X			36.0						36.0		coast redwood	<i>Sequoia sempervirens</i>	80/30	75/75	75% good	good										Possible steep hillside stability issues.	70% overall condition "good".	
206	X			24.1						24.1		coast redwood	<i>Sequoia sempervirens</i>	75/20	75/85	70% good	good										Possible steep hillside stability issues.	55% overall condition "fair".	
207	X			29.9						29.9		coast redwood	<i>Sequoia sempervirens</i>	80/25	75/40	50% fair	good							25			Possible steep hillside stability issues. Needs arborist cabling between mainstems, or remove one of two mainstems, if retain tree.	40% overall condition "poor".	
208	X			32.2						32.2		coast redwood	<i>Sequoia sempervirens</i>	80/25	75/40	50% fair	good							30			Possible steep hillside stability issues. Needs arborist cabling between mainstems, or remove one of two mainstems, if retain tree.	35% overall condition "poor".	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131448)	"Protected Tree" per City of Cupertino (10" DBH, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (If any) or Cutting Roots (GR)	Stem Decay (Note Elevation)	Condominium Mainstems with Inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
209	X	X		22.4						22.4		tulip tree (ID not verified - tree out of leaf during survey)	<i>Liriodendron tulipifera</i>	75/20	0/0	0% dead											High risk of failure. Dead tree.	
210	X			49.0						49.0		coast redwood	<i>Sequoia sempervirens</i>	85/25	75/80	65% fair	moderate						65			Possible stability issue on the hill. Roots may have been severed.	65% overall condition "fair".	
211	X			14.9						14.9		coast redwood	<i>Sequoia sempervirens</i>	50/15	65/65	85% fair	moderate								X	X		35% overall condition "poor".
212	X			22.0						22.0		coast redwood	<i>Sequoia sempervirens</i>	65/15	75/75	75% good	moderate								X	X		65% overall condition "fair".
213	X	X		16.0						16.0		tulip tree (ID not verified - tree out of leaf during survey)	<i>Liriodendron tulipifera</i>	35/30	0/0	0% dead (Confirm in spring)		W									Tree appears dead, but may simply be above ground dormant until spring leafout.	
214	X	X		31.3						31.3		coast redwood	<i>Sequoia sempervirens</i>	75/25	75/65	70% good	moderate									X		25% overall condition "very poor".
215	X			20.3						20.3		fern pine	<i>Podocarpus gracillor</i>	50/20	80/80	70% good	good	W										
216	X			15.4						15.4		fern pine	<i>Podocarpus gracillor</i>	50/20	75/65	70% good	good	W										
217	X			13.6						13.6		fern pine	<i>Podocarpus gracillor</i>	50/20	75/65	70% good	good	W										
218	X	X		17.4						17.4		tulip tree (ID not verified - tree out of leaf during survey)	<i>Liriodendron tulipifera</i>	55/20	0/0	0% dead? (Verify once tree has leafed out in spring)		W									Verify condition once tree has leafed out (or not) in spring.	
219				20.8						20.8		Shamel ash	<i>Fraxinus uhdei</i>	50/25	40/50	43% poor	poor to mod	W								X		Tree is in decline with an apparent overall condition of roughly 30% (Poor).
220	X			26.8						26.8		Shamel ash	<i>Fraxinus uhdei</i>	55/35	60/55	59% fair	moderate											
221				19.3						19.3		Shamel ash	<i>Fraxinus uhdei</i>	50/25	50/50	50% fair	moderate											Tree is in decline with an apparent overall condition of roughly 30% (Poor).

Tree Tag #	To be Removed Per Current Site Plan	Author (Checkmarks Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-23448)	"Protected Tree" per City of Cupertino Ordinance (10' dbh, 20" multi-trunk stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Root Rotting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
222				19.5						19.5		Shamel ash	<i>Fraxinus uhdei</i>	55/35	60/55	58% fair	moderate	E										Tree is in decline with an apparent overall condition of roughly 30% (Poor).
223	X			30.4						30.4		Shamel ash	<i>Fraxinus uhdei</i>	55/40	70/45	65% fair	good	E	E		GR		12	X				
224	X			18.4						18.4		Shamel ash	<i>Fraxinus uhdei</i>	50/15	40/50	40% poor	poor to mod	W										
225	X			25.4						25.4		Shamel ash	<i>Fraxinus uhdei</i>	55/35	50/40	48% poor	moderate	E										Roots severed on west side.
226	X			15.5						15.5		Shamel ash	<i>Fraxinus uhdei</i>	45/25	50/30	37% poor	moderate	E	E				0 to 1					Roots severed on west side.
227	X	X		18.5						18.5		Shamel ash	<i>Fraxinus uhdei</i>	45/25	30/20	25% very poor	poor	E					0 to 5	14				Roots severed on west side.
228	X			11.5						11.5		Shamel ash	<i>Fraxinus uhdei</i>	30/25	40/30	35% poor	moderate	E										Roots severed on west side.
229	X			9.6						9.6		coast redwood	<i>Sequoia sempervirens</i>	25/12	90/90	90% excellent	good											80% overall condition "good".
230	X			8.9						8.9		coast redwood	<i>Sequoia sempervirens</i>	30/14	90/90	90% excellent	good											80% overall condition "good".
231	X			14.4						14.4		Shamel ash	<i>Fraxinus uhdei</i>	45/20	35/45	39% poor	poor											
232	X			19.3						19.3		Shamel ash	<i>Fraxinus uhdei</i>	55/30	40/45	42% poor	poor to mod	E										
233	X			19.6						19.6		Shamel ash	<i>Fraxinus uhdei</i>	55/30	50/40	47% poor	moderate	E					0 to 1					
234	X			15.1						15.1		Shamel ash	<i>Fraxinus uhdei</i>	50/25	35/35	35% poor	poor	E										

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-13448)	"Protected Tree" per City of Cupertino (10' or more stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Any Rooting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
235	X			17.8						17.8		Shamel ash	<i>Fraxinus uhdei</i>	55/25	55/40	50% fair	moderate												
236	X			17.4						17.4		Shamel ash	<i>Fraxinus uhdei</i>	55/25	55/55	55% fair	moderate												
237	X			6.5						6.5		Shamel ash	<i>Fraxinus uhdei</i>	30/15	75/65	70% good	mod to good												
238	X			9.2						9.2		Shamel ash	<i>Fraxinus uhdei</i>	35/18	75/80	72% good	mod to good												
239	X			6.6						6.6		Shamel ash	<i>Fraxinus uhdei</i>	30/18	70/45	54% fair	mod to good					serious GR							
240	X			6.1						6.1		Shamel ash	<i>Fraxinus uhdei</i>	30/18	70/60	70% good	mod to good												
241	X			6.4						6.4		coast redwood	<i>Sequoia sempervirens</i>	30/10	85/85	85% good	good											80% overall condition "good".	
242	X			5.4						5.4		coast redwood	<i>Sequoia sempervirens</i>	30/10	85/85	85% good	good											80% overall condition "good".	
243	X			5.7						5.7		coast redwood	<i>Sequoia sempervirens</i>	30/10	85/85	85% good	good											75% overall condition "good".	
244	X			4.6						4.6		coast redwood	<i>Sequoia sempervirens</i>	25/10	75/75	75% good	good											75% overall condition "good".	
245	X			6.7						6.7		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/14	85/85	75% good	good	N											
246	X			5.8						5.8		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	25/13	85/60	68% fair	good							see notes			Two codominant mainstems. Remove one of two.		
247	X			4.9						4.9		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	24/10	85/50	55% fair	moderate	N									Root crown anomaly.		

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 4' A.G. (112-2448)	"Protected Tree" per City of Cupertino (14" dbh or more, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots (GR))	Stem Decay (Note Elevation)	Co-dominant Mainstems with Buttresses/Inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCIA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
246	X			7.8						7.8		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/18	85/55	82% fair	good	N						Various elevations				
249	X			6.5						6.5		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/12	85/85	75% good	good	N										
250	X			6.3						6.3		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/12	85/55	80% fair	good	N						12				
251	X			6.1						6.1		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	20/10	85/80	88% fair	good											
252	X			8.6						8.6		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	18/8	85/75	80% good	good											
253	X			7.3						7.3		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/15	85/85	73% good	good											
254	X			7.5						7.5		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/18	85/85	88% fair	good							7				
255	X			9.0						9.0		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/20	85/45	55% fair	good				X			7				
256	X			7.5						7.5		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/15	85/80	58% fair	good				X			7				
257	X			7.4						7.4		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/15	85/55	85% fair	good				X			10				
258	X			6.7						6.7		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	30/15	85/80	87% fair	good			X	X							
259	X			4.9						4.9		flowering pear (out of leaf)	<i>Pyrus calleryana</i> Cult.	25/12	85/85	89% fair	good			X								
260			X	35.9						35.9	X	California sycamore	<i>Platanus racemosa</i>	65/45	65/50	80% fair	moderate	W	W									Tree is in roughly the same overall condition rating as noted in prior years. Tree to be transplanted per project team.

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 4' A.G. (112-13448)	"Protected Tree" per City of Cupertino Ordinance (10' dbh, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Any Cutting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Buttresses/Inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
261			X	22.6	21.9					44.7	X	California sycamore	<i>Platanus racemosa</i>	65/45	75/45	57% fair	moderate	N & S				GR	See notes at right	At zero ft.			Bark sloughing at root crown, possibly due to irrigation water spray.	Tree is in roughly the same overall condition rating as noted in prior years. Tree to be transplanted per project team.
262			X	15.4						15.4	X	California sycamore	<i>Platanus racemosa</i>	45/30	70/70	70% good	moderate	NE	NE				1 ft.					Tree is in roughly the same overall condition rating as noted in prior years. Tree to be transplanted per project team.
263				18.5						18.5		Shamel ash	<i>Fraxinus uhdei</i>	35/15	50/45	47% poor	moderate	S	S				GR					Tree condition is roughly the same as previously noted in past years.
264	X			14.9						14.9		Shamel ash	<i>Fraxinus uhdei</i>	55/20	55/55	55% fair	poor to mod	S	S									
265	X			19.0						19.0		Shamel ash	<i>Fraxinus uhdei</i>	50/20	55/40	45% poor	moderate						GR	25				
266	X			20.6						20.6		Shamel ash	<i>Fraxinus uhdei</i>	55/30	50/30	35% poor	poor to mod				X						Roots have been severed.	
267	X			23.7						23.7		Shamel ash	<i>Fraxinus uhdei</i>	50/35	65/30	30% poor	good	SW	SW				GR				Roots have been severed.	
268	X			26.5						26.5		Shamel ash	<i>Fraxinus uhdei</i>	55/25	75/55	65% fair	good	S							X			
269	X			27.1						27.1		Shamel ash	<i>Fraxinus uhdei</i>	55/25	75/45	55% fair	good					serious GR		25	X			
270				28.7						28.7		Shamel ash	<i>Fraxinus uhdei</i>	60/35	75/55	63% fair	good							10		Root system asymmetrical	Tree condition appears to be declining. Current condition rating is roughly 48% (Poor).	
271	X			35.2						35.2		coast redwood	<i>Sequoia sempervirens</i>	60/20	70/70	70% good	moderate								X			
272	X			19.3						19.3		coast redwood	<i>Sequoia sempervirens</i>	70/12	68/70	69% fair	moderate								X			
273	X			23.3						23.3		coast redwood	<i>Sequoia sempervirens</i>	60/12	70/70	70% good	moderate								X			

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino (Trees 10" or more stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown or Root Collar Rotting (GR)	Stem Decay (Note Elevation)	Condominium Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018			
274	X			23.9						23.9		coast redwood	<i>Sequoia sempervirens</i>	80/12	70/70	70% good	moderate											X			
275	X			17.0						17.0		Shamel ash	<i>Fraxinus uhdei</i>	55/16	65/65	65% fair	moderate												X		
276				15.4						15.4		Shamel ash	<i>Fraxinus uhdei</i>	50/12	40/30	34% poor	poor	E					at root crown		X					Tree condition same as noted in prior years.	
277				19.3						19.3		Shamel ash	<i>Fraxinus uhdei</i>	50/25	50/40	40% poor	moderate	E	E			serious GR			X					Tree condition appears to be declining. Current condition is roughly 30% (Poor).	
278				21.0						21.0		Shamel ash	<i>Fraxinus uhdei</i>	60/25	60/50	55% fair	moderate	W	W			GR									Tree condition appears to be declining. Current condition is roughly 45% (Poor).
279				26.7						26.7		coast redwood	<i>Sequoia sempervirens</i>	50/20	80/80	80% good	good														Tree condition appears to be declining. Current condition is roughly 70% (i.e. the low end of "Good" condition rating range).
280				18.4						18.4		Shamel ash	<i>Fraxinus uhdei</i>	40/20	30/45	37% poor	poor					serious GR				X					Tree condition appears to be declining. Current condition is roughly 35% (Poor).
281		X		21.2						21.2		Shamel ash	<i>Fraxinus uhdei</i>	50/35	30/20	20% very poor	very poor			6						X		Roots severed.		Condition same as noted in prior years.	
282				15.0						15.0		Shamel ash	<i>Fraxinus uhdei</i>	35/18	30/30	30% poor	poor	E				GR				X		Roots severed.		Tree in same condition as previously noted in past years.	
283		X		18.1						18.1		Shamel ash	<i>Fraxinus uhdei</i>	50/20	40/30	35% poor	poor to mod		E			GR				X		Roots severed.		Tree in decline. Current condition is roughly 25% (Very Poor). Suggest consider removal of tree.	
284				14.4						14.4		Shamel ash	<i>Fraxinus uhdei</i>	40/25	40/40	40% poor	poor					GR				X					Tree in same condition as previously noted in past years.
285	X			18.4						18.4		Shamel ash	<i>Fraxinus uhdei</i>	50/25	50/40	44% poor	poor to mod	E	E			GR				X		Roots severed.			
286	X			17.0						17.0		Shamel ash	<i>Fraxinus uhdei</i>	40/45	60/60	60% fair	moderate	N													

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287	X			24.3						24.3		coast redwood	<i>Sequoia sempervirens</i>	60/15	70/70	70% good	moderate									X			
288	X			15.7						15.7		coast redwood	<i>Sequoia sempervirens</i>	60/15	70/70	70% good	moderate										X		
289	X	X		26.9						26.9		coast redwood	<i>Sequoia sempervirens</i>	60/15	50/65	63% fair	moderate										X	Apical meristem showing physical symptoms of soil moisture deficit.	Tree in decline. Current condition is 23% (Very Poor). Suggest remove this tree.
290				14.8						14.8		Shamel ash	<i>Fraxinus uhdei</i>	40/20	45/35	40% poor	poor to mod	W				serious GR				X		Tree in decline. Current condition is 30% (Poor).	
291				24.2						24.2		Shamel ash	<i>Fraxinus uhdei</i>	50/40	55/45	48% poor	moderate	W				serious GR		6				Tree in decline. Current condition is 30% (Poor).	
292				16.3						16.3		coast redwood	<i>Sequoia sempervirens</i>	35/10	70/70	70% good	moderate											Tree is in decline due to chronic droughty conditions. Current condition rating is 60% (Fair).	
293		X		11.0						11.0		giant sequoia	<i>Metssequoia glyptostroboides</i>	20/10	30/30	30% poor	poor	W	W								Has a <i>Botryosphaeria</i> infection.	TREE IS DEAD. REMOVE TREE FROM THE LANDSCAPE.	
294	X			18.7						18.7		fern pine	<i>Podocarpus gracillior</i>	30/18	50/40	45% poor	moderate	W							6	X			
295	X			8.6						8.6		southern magnolia	<i>Magnolia grandiflora</i>	18/15	25/25	25% very poor	very poor	W		9						X	X		
296	X			17.3						17.3		Shamel ash	<i>Fraxinus uhdei</i>	30/15	35/35	35% poor	poor	W	W										
297	X	X		12.1						12.1		Shamel ash	<i>Fraxinus uhdei</i>	25/15	35/20	20% very poor	poor												
298	X	X		18.8						18.8		coast redwood	<i>Sequoia sempervirens</i>	60/12	15/15	15% very poor	very poor										X	25% overall condition "very poor".	
299	X			16.0						16.0		Shamel ash	<i>Fraxinus uhdei</i>	45/15	30/45	40% poor	poor		E										

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" DBH, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Injury Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown by Existing Roots (GR)	Stem Decay (Note Elevation)	Co-dominant Mainstems with buttresses or inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
300	X	X		23.3						23.3		coast redwood	<i>Sequoia sempervirens</i>	60/15	20/20	20% very poor	very poor								X		50% overall condition "fair".		
301	X	X		15.2						15.2		Shamel ash	<i>Fraxinus uhdei</i>	25/18	20/15	19% very poor	very poor									X			
302	X			26.9	15.0					41.9		coast redwood	<i>Sequoia sempervirens</i>	70/25	60/60	60% fair	moderate									X		70% overall condition "good".	
303	X			17.2						17.2		Shamel ash	<i>Fraxinus uhdei</i>	35/25	55/80	55% fair	moderate	NW											
304	X	X		19.0						19.0		coast redwood	<i>Sequoia sempervirens</i>	45/10	5/5	5% very poor	very poor									X			
305	X	X		20.1						20.1		Shamel ash	<i>Fraxinus uhdei</i>	20/15	10/10	10% very poor				X				6					
306	X			17.5						17.5		Shamel ash	<i>Fraxinus uhdei</i>	45/25	50/40	40% poor	poor to mod	W						8					
307	X	X		17.7						17.7		Shamel ash	<i>Fraxinus uhdei</i>	40/20	30/25	28% very poor	poor			X			0 to 6						
308	X			21.1						21.1		coast redwood	<i>Sequoia sempervirens</i>	50/15	75/75	75% good	good												
309	X			18.2						18.2		coast redwood	<i>Sequoia sempervirens</i>	50/15	75/70	73% good	good											70% overall condition "good".	
310	X			20.6						20.6		Shamel ash	<i>Fraxinus uhdei</i>	50/35	50/50	50% fair	moderate	W										50% overall condition "fair".	
311	X			27.0						27.0		Shamel ash	<i>Fraxinus uhdei</i>	55/45	65/55	60% fair	good	W						8					
312	X			16.1						16.1		Shamel ash	<i>Fraxinus uhdei</i>	35/20	50/25	32% poor	moderate	W					GR						at root crown due to sprinkler irrigation most likely

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313	X			20.9						20.9		Shamel ash	<i>Fraxinus uhdei</i>	45/35	50/35	45% poor	poor	W										
314	X			30.6						30.6		Shamel ash	<i>Fraxinus uhdei</i>	55/45	70/40	50% fair	Good			X				6			Root system on steep slope	
315	X			21.8						21.8		coast redwood	<i>Sequoia sempervirens</i>	60/12	55/60	57% fair	moderate	E								X		25% overall condition "very poor".
316	X			18.5						18.5		Shamel ash	<i>Fraxinus uhdei</i>	55/20	50/45	48% poor	moderate	N									Root system on steep slope	
317	X			10.2						10.2		Shamel ash	<i>Fraxinus uhdei</i>	45/12	40/40	40% poor	poor											35% overall condition "poor".
318	X			9.9						9.9		Shamel ash	<i>Fraxinus uhdei</i>	50/12	45/45	45% poor	poor											
319	X			18.6						18.6		Shamel ash	<i>Fraxinus uhdei</i>	50/30	50/60	50% fair	moderate	N										
320	X			13.3						13.3		Shamel ash	<i>Fraxinus uhdei</i>	35/12	50/40	45% poor	moderate								7			
321	X			16.2						16.2		Shamel ash	<i>Fraxinus uhdei</i>	50/20	55/60	56% fair	mod to good										X	
322	X			11.9						11.9		Shamel ash	<i>Fraxinus uhdei</i>	45/15	40/40	40% poor	poor										X	
323	X			9.4						9.4		Shamel ash	<i>Fraxinus uhdei</i>	45/12	30/30	30% poor	poor										X	
324	X			12.6						12.6		Shamel ash	<i>Fraxinus uhdei</i>	40/12	30/40	35% poor	poor										X	
325	X	X		7.4						7.4		Shamel ash	<i>Fraxinus uhdei</i>	28/12	20/20	20% very poor	very poor										X	

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326	X			13.0						13.0		Shamel ash	<i>Fraxinus uhdei</i>	45/20	45/55	48% poor	poor									X		
327	X			11.9						11.9		Shamel ash	<i>Fraxinus uhdei</i>	45/12	30/30	30% poor	poor		E			GR				X		
328	X	X		5.7						5.7		southern magnolia	<i>Magnolia grandiflora</i>	12/6	0/0	0% dead										X		
329				14.2						14.2		Shamel ash	<i>Fraxinus uhdei</i>	45/20	35/40	38% poor	poor		S							X		
330				15.7						15.7		Shamel ash	<i>Fraxinus uhdei</i>	40/20	30/40	35% poor	poor		S							X		
331	X			10.1						10.1		Shamel ash	<i>Fraxinus uhdei</i>	30/20	40/35	37% poor	poor	S	S							X		
332	X	X		18.9						18.9		coast redwood	<i>Sequoia sempervirens</i>	55/12	5/5	5% very poor	very poor									X		0% (Dead).
333	X	X		18.4						18.4		coast redwood	<i>Sequoia sempervirens</i>	55/8	5/5	5% very poor	very poor									X		0% (Dead).
334	X			18.5						18.5		Shamel ash	<i>Fraxinus uhdei</i>	45/25	45/55	50% fair	moderate									X		
335	X	X		16.0						16.0		coast redwood	<i>Sequoia sempervirens</i>	50/12	5/5	5% very poor	very poor									X		0% (Dead).
336	X	X		9.6						9.6		Shamel ash	<i>Fraxinus uhdei</i>	25/10	10/10	10% very poor	moderate						mainstem			X		
337	X	X		8.8						8.8		Shamel ash	<i>Fraxinus uhdei</i>	25/7	5/5	5% very poor	very poor						mainstem			X		
338	X			8.7						8.7		Shamel ash	<i>Fraxinus uhdei</i>	30/8	30/10	15% very poor	poor						mainstem			X		

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339	X				12.6						12.8		Shamel ash	<i>Fraxinus uhdei</i>	40/20	40/40	40% poor	poor	W								X		
340	X				14.3						14.3		Shamel ash	<i>Fraxinus uhdei</i>	50/20	35/40	38% poor	poor									X		
341	X	X			10.9						10.9		Shamel ash	<i>Fraxinus uhdei</i>	35/8	10/10	10% very poor	very poor						mainstem			X		
342	X	X			12.0						12.0		Shamel ash	<i>Fraxinus uhdei</i>	45/18	10/10	10% very poor	very poor						mainstem			X		
343	X				13.7						13.7		Shamel ash	<i>Fraxinus uhdei</i>	45/18	35/35	35% poor	poor									X	Verify condition once trees leaf out in spring.	
344	X	X			7.3						7.3		Shamel ash	<i>Fraxinus uhdei</i>	20/12	20/20	20% very poor	very poor									X		
345	X				14.4						14.4		Shamel ash	<i>Fraxinus uhdei</i>	50/20	40/30	35% poor	poor							8		X		
346	X	X			10.7						10.7		Shamel ash	<i>Fraxinus uhdei</i>	25/12	10/10	10% very poor	very poor	E								X		
347	X	X			11.3						11.3		Shamel ash	<i>Fraxinus uhdei</i>	25/12	25/10	17% very poor	poor									X		
348	X	X			12.9						12.9		Shamel ash	<i>Fraxinus uhdei</i>	45/18	25/20	20% very poor	very poor									X		
349	X	X			12.2						12.2		Shamel ash	<i>Fraxinus uhdei</i>	30/20	25/25	25% very poor	very poor									X		
350	X	X			14.2						14.2		Shamel ash	<i>Fraxinus uhdei</i>	50/15	20/20	20% very poor	very poor									X		
351	X				14.6						14.6		Shamel ash	<i>Fraxinus uhdei</i>	30/20	40/25	25% very poor	poor to mod							8		X		

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino (10" DBH, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots (GR))	Stem Decay (Note Elevation)	Co-dominant Mainstems with Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
352	X			11.7						11.7		Shamel ash	<i>Fraxinus uhdei</i>	25/20	10/10	10% very poor	very poor	W	W							X			
353	X			17.7						17.7		Shamel ash	<i>Fraxinus uhdei</i>	40/25	35/35	35% poor	poor	E								X			
354	X			18.4						18.4		Shamel ash	<i>Fraxinus uhdei</i>	35/20	45/35	40% poor	poor									X			
355	X			12.5						12.5		Shamel ash	<i>Fraxinus uhdei</i>	35/15	20/15	15% very poor	very poor									X			
356	X			18.0						18.0		Shamel ash	<i>Fraxinus uhdei</i>	45/30	20/10	15% very poor	very poor	W	S							X			
357	X			20.8						20.8		Shamel ash	<i>Fraxinus uhdei</i>	45/45	40/50	45% poor	M									X			
358	X			10.9						10.9		Shamel ash	<i>Fraxinus uhdei</i>	35/15	0/0	0% dead	E	E								X			
359	X			18.3						18.3		Pine species (not verified)	<i>Pinus sp.</i>	30/20	80/55	65% fair	good	N				0 to 1 foot			X			40% overall condition "poor".	
360	X			24.4						24.4		Italian stone pine	<i>Pinus pinea</i>	30/35	90/80	77% good	excellent												65% overall condition "fair".
361	X			28.6						28.6		Italian stone pine	<i>Pinus pinea</i>	30/30	60/60	60% fair	moderate								X	X	Measured at 2 feet.	65% overall condition "fair".	
362	X			28.6						28.6		Italian stone pine	<i>Pinus pinea</i>	25/35	70/70	70% good	good								X		Measured at 2 feet.	50% overall condition "fair".	
363	X	X		7.2						7.2		red oak	<i>Quercus rubra (not verified)</i>	20/15	80/50	60% fair	good										Tree out of leaf. Needs training pruning.	10% overall condition "very poor".	
364	X	X		5.5						5.5		oak species	<i>Quercus sp.</i>	12/8	60/40	40% poor	moderate				X			5			Tree out of leaf. Needs training pruning.	5% overall condition "very poor".	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/448)	"Protected Tree" per City of Cupertino Ordinance (10' or more stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Root Rotting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
365	X	X		7.3						7.3		southern magnolia	<i>Magnolia grandiflora</i>	18/13	40/40	40% poor	poor to mod									X		10% overall condition "very poor".	
366	X			17.0						17.0		Italian stone pine	<i>Pinus pinea</i>	18/25	80/60	60% fair	good	N								X	Measured at 3.5 feet	60% overall condition "fair".	
367	X	X		24.3						24.3		Italian stone pine	<i>Pinus pinea</i>	25/30	80/35	45% poor	good	N						6		X		20% overall condition "very poor".	
368	X			20.2						20.2		Italian stone pine	<i>Pinus pinea</i>	25/30	80/35	45% poor	good	N				GR		7		X	Measured at 3.5 feet.	30% overall condition "poor".	
369	X			23.8						23.8		Italian stone pine	<i>Pinus pinea</i>	25/30	50/60	50% fair	poor to mod			10								Measured at 2.0 feet.	38% overall condition "poor".
370	X			5.7						5.7		tree species out of leaf	(Genus, species)	25/15	75/65	65% fair	moderate											Verify species in spring after full leafout.	
371	X			28.3						28.3		Aleppo pine	<i>Pinus halepensis</i>	30/35	80/80	70% good	good									X	Codominant mainstems at 5 feet.	60% overall condition "fair".	
372	X			21.6	16.7					40.3		Italian stone pine	<i>Pinus pinea</i>	30/35	80/70	75% good	good	N									X		65% overall condition "fair".
373	X	X		7.4						7.4		southern magnolia	<i>Magnolia grandiflora</i>	20/15	25/25	25% very poor	very poor										X		20% overall condition "very poor".
374	X	X		7.2						7.2		tulip tree	<i>Liriodendron tulipifera</i>	12/8	20/10	15% very poor	very poor	N			X					X	X		
375	X	X		5.6						5.6		tulip tree	<i>Liriodendron tulipifera</i>	12/8	20/10	15% very poor	very poor				X					X	X		
376	X	X		5.6						5.6		southern magnolia	<i>Magnolia grandiflora</i>	13/10	25/25	25% very poor	very poor										X		10% overall condition "very poor".
377	X	X		7.6						7.6		southern magnolia	<i>Magnolia grandiflora</i>	19/12	35/35	35% poor	poor										X		20% overall condition "very poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desires to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131-148)	"Protected Tree" per City of Cupertino (10" DBH stems, 20" multi-trunk stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Condominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
378	X	X		7.0						7.0		southern magnolia	<i>Magnolia grandiflora</i>	20/14	20/20	20% very poor	very poor									X		20% overall condition "very poor".	
379	X	X		6.5						6.5		southern magnolia	<i>Magnolia grandiflora</i>	14/12	25/25	25% very poor	very poor										X		20% overall condition "very poor".
380	X	X		7.4						7.4		southern magnolia	<i>Magnolia grandiflora</i>	20/10	20/20	20% very poor	very poor	W									X		20% overall condition "very poor".
381	X			28.0	14.7					37.7		Italian stone pine	<i>Pinus pinea</i>	25/30	75/55	64% fair	moderate							5		X			49% overall condition "poor".
382	X			20.8						20.8		Italian stone pine	<i>Pinus pinea</i>	25/25	70/60	65% fair	moderate						GR				X		59% overall condition "fair".
383	X			19.5						19.5		Italian stone pine	<i>Pinus pinea</i>	25/30	80/65	74% good	good		E				GR				X		44% overall condition "poor".
384	X			22.0						22.0		Italian stone pine	<i>Pinus pinea</i>	25/30	70/60	65% fair	moderate	S	S								X	Measured at 2.0 feet.	50% overall condition "fair".
385	X			33.2						33.2		Italian stone pine	<i>Pinus pinea</i>	25/35	60/30	38% poor	moderate							3		X			42% overall condition "poor".
386	X	X		4.5						4.5		southern magnolia	<i>Magnolia grandiflora</i>	13/8	15/15	15% very poor	very poor							1		X	X		10% overall condition "very poor".
387	X	X		7.8						7.8		southern magnolia	<i>Magnolia grandiflora</i>	18/18	20/20	20% very poor	very poor										X		30% overall condition "poor".
388	X	X		7.5						7.5		southern magnolia	<i>Magnolia grandiflora</i>	18/15	20/20	20% very poor	very poor										X		15% overall condition "very poor".
389	X			31.8	22.3					54.2		Italian stone pine	<i>Pinus pinea</i>	30/45	50/40	47% poor	moderate							2		X			44% overall condition "poor".
390	X			13.2	13.0					26.2		Italian stone pine	<i>Pinus pinea</i>	25/15	80/30	45% poor	good	N	N					3		X			35% overall condition "poor".

Tree Tag #	To be Removed Per Current Site Plan	Author (or to be Removed Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 64" A.G. (112-131/68)	"Protected Tree" per City of Cupertino (10" DBH, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown by Existing Roots (GR)	Stem Decay (Note Elevation)	Co-dominant Mainstems with buttresses/inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
391	X			12.4	12.0					24.4		Italian stone pine	<i>Pinus pinea</i>	25/30	80/80	67% fair	good	E	E				3	X			46% overall condition "poor".	
392	X			14.6						14.6		Italian stone pine	<i>Pinus pinea</i>	25/18	80/85	69% fair	good	E							X			40% overall condition "poor".
393	X			14.3						14.3		Italian stone pine	<i>Pinus pinea</i>	20/20	70/70	70% good	good		E						X			55% overall condition "fair".
394	X			10.3						10.3		tree species out of leaf	(Genus, species)	35/20	80/85	76% good	good											
395	X			9.8						9.8		tree species out of leaf	(Genus, species)	35/20	80/85	76% good	good	W										
396	X	X		18.1						18.1		coast redwood	<i>Sequoia sempervirens</i>	65/12	70/70	70% good	moderate										Steep slope	15% overall condition "very poor".
397	X	X		20.5						20.5		coast redwood	<i>Sequoia sempervirens</i>	65/12	75/75	75% good	moderate										Steep slope	25% overall condition "very poor".
398	X			18.4						18.4		Shamel ash	<i>Fraxinus uhdei</i>	40/25	80/70	74% good	good										Steep slope	
399	X			11.3						11.3		Shamel ash	<i>Fraxinus uhdei</i>	35/15	30/30	30% poor	poor										Steep slope	
400	X			21.3						21.3		Shamel ash	<i>Fraxinus uhdei</i>	40/25	60/50	55% fair	moderate							6			Steep slope	
401	X			20.2						20.2		Shamel ash	<i>Fraxinus uhdei</i>	45/20	50/35	40% poor	moderate	W					8	10		On steep slope.		
402	X			18.4						18.4		Shamel ash	<i>Fraxinus uhdei</i>	45/25	60/45	55% fair	good							6			On steep slope.	
403	X			15.0						15.0		Shamel ash	<i>Fraxinus uhdei</i>	40/18	40/40	40% poor	poor	W					6	8		On steep slope.		

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desires to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (152-23448)	"Protected Tree" per City of Cupertino (10" DBH or greater, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown by Existing Roots (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCOA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
404	X			25.7						25.7		Shamel ash	<i>Fraxinus uhdei</i>	55/35	40/40	40% poor	poor	SW					various elevations			On steep slope.		
405	X			29.5						29.5		Shamel ash	<i>Fraxinus uhdei</i>	65/35	40/35	40% poor	poor	S	S				7			On steep slope.		
406	X	X		17.4						17.4		coast redwood	<i>Sequoia sempervirens</i>	50/8	70/70	70% good	moderate									On steep slope.	25% overall condition "very poor".	
407	X	X		4.1						4.1		southern magnolia	<i>Magnolia grandiflora</i>	15/1	5/5	5% very poor	very poor						0 to 10				0% (Dead)	
408	X	X		5.9	3.8					9.7		southern magnolia	<i>Magnolia grandiflora</i>	18/6	10/10	10% very poor	very poor						various elevations				10% overall condition "very poor".	
409	X			18.3						18.3		coast redwood	<i>Sequoia sempervirens</i>	55/15	65/65	65% fair	moderate								X		60% overall condition "fair".	
410	X			20.7						20.7		coast redwood	<i>Sequoia sempervirens</i>	55/13	65/65	65% fair	moderate								X		60% overall condition "fair".	
411	X			22.4						22.4		coast redwood	<i>Sequoia sempervirens</i>	55/13	60/60	60% fair	poor to mod								X		40% overall condition "poor".	
412	X			32.4						32.4		Shamel ash	<i>Fraxinus uhdei</i>	65/35	65/65	65% fair	good	S										
413	X			15.6						15.6		Shamel ash	<i>Fraxinus uhdei</i>	60/18	50/40	45% poor	poor to mod	N										
414			X	22.5						22.5	X	California sycamore	<i>Platanus racemosa</i>	55/30	50/45	50% fair	moderate	W	W			GR				Will need endweight reduction pruning at west side of canopy.	Team proposes to transplant tree. Current condition roughly the same as previously noted in past years.	
415			X	18.3						18.3	X	California sycamore	<i>Platanus racemosa</i>	60/30	50/50	50% fair	moderate	N				GR					Team proposes to transplant tree. Current condition roughly the same as previously noted in past years.	
416			X	17.8						17.8	X	California sycamore	<i>Platanus racemosa</i>	50/20	50/50	50% fair	moderate	E				GR					Team proposes to transplant tree. Current condition roughly the same as previously noted in past years.	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" DBH stems, 20" multi-trunk stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Root Rotting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
417	X			19.2						19.2		Shamel ash	<i>Fraxinus uhdei</i>	30/25	75/55	70% good	good											
418	X			11.5						11.5		Shamel ash	<i>Fraxinus uhdei</i>	30/15	45/40	40% poor	moderate					GR						
419	X			17.3						17.3		Shamel ash	<i>Fraxinus uhdei</i>	35/40	60/50	55% fair	moderate	W				GR						
420	X			11.1						11.1		Shamel ash	<i>Fraxinus uhdei</i>	35/25	75/70	70% good	good	W										
421	X			13.7						13.7		Shamel ash	<i>Fraxinus uhdei</i>	35/25	50/50	50% fair	poor to mod											
422	X			14.3						14.3		Shamel ash	<i>Fraxinus uhdei</i>	30/30	75/45	60% fair	good						0					
423	X			29.1						29.1		coast redwood	<i>Sequoia sempervirens</i>	70/20	70/70	70% good	moderate											80% overall condition "fair".
424	X			33.6						33.6		coast redwood	<i>Sequoia sempervirens</i>	70/18	60/60	60% fair	moderate											45% overall condition "poor".
425	X			24.9						24.9		coast redwood	<i>Sequoia sempervirens</i>	65/15	70/70	70% good	moderate											80% overall condition "fair".
426	X			27.8						27.8		coast redwood	<i>Sequoia sempervirens</i>	55/20	75/68	70% good	moderate											65% overall condition "fair".
427	X			17.3						17.3		Shamel ash	<i>Fraxinus uhdei</i>	60/20	40/40	40% poor	poor	E						X				
428				29.0						29.0		Shamel ash	<i>Fraxinus uhdei</i>	60/35	50/50	50% fair	poor to mod	W										Tree is declining. Appears to be in 40% overall condition (Poor), with normal leaf senescence plus twig and branch dieback from drought-induced decline.
429				22.0						22.0		Shamel ash	<i>Fraxinus uhdei</i>	55/35	70/55	65% fair	good										Codominant mainstems fork at 13 feet.	Tree is declining. Appears to be in 45% overall condition (Poor).

Tree Tag #	To be Removed Per Current Site Plan	Author Approved Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desires to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 64" A.G. (152-23448)	"Protected Tree" per City of Cupertino Ordinance (10" DBH, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Leaned Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Root Rotting Roots (GR))	Stem Decay (Note Elevation)	Concomitant Masses with Bark Inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
430		X		27.4						27.4		giant sequoia	<i>Metasequoia glyptostroboides</i>	75/15	65/45	55% fair	poor to mod										Tree was limbed up.	TREE IS DEAD. TREE REQUIRES REMOVAL FROM THE LANDSCAPE.	
431				27.9						27.9		Shamel ash	<i>Fraxinus uhdei</i>	95/45	45/30	40% poor	poor to mod	W	E				9					Tree in decline, with a current overall condition of 34% or "Poor".	
432				24.0						24.0		Shamel ash	<i>Fraxinus uhdei</i>	55/35	50/60	55% fair	poor to mod	W										Tree in decline, with a current overall condition of 44% or "Poor".	
433				16.9						16.9		Shamel ash	<i>Fraxinus uhdei</i>	90/25	75/80	63% fair	good	E	E									Tree in decline, with a current overall condition of 50% or "Fair". ("Fair" ranges from 50% to 66%).	
434		X		29.3						29.3		giant sequoia	<i>Metasequoia glyptostroboides</i>	75/12	35/20	25% very poor	poor	E			X						Roots were severed during installation of ADA walkway.	TREE IS DEAD. TREE REQUIRES REMOVAL FROM THE LANDSCAPE.	
435		X		31.1						31.1		Shamel ash	<i>Fraxinus uhdei</i>	65/45	40/20	25% very poor	poor	W				GR					Roots severed during sidewalk replacement	Same condition as previous.	
436	X			23.0	12.0					35.0		coast redwood	<i>Sequoia sempervirens</i>	65/18	75/80	66% fair	good							3				Diameters estimated.	
437				27.7						27.7		Shamel ash	<i>Fraxinus uhdei</i>	60/30	30/30	30% poor	poor	W						9				Tree currently in the same condition as previously noted.	
438	X	X		23.5						23.5		Shamel ash	<i>Fraxinus uhdei</i>	65/18	60/30	37% poor	moderate	E									Roots severed during sidewalk replacement		
439	X			27.0						27.0		coast redwood	<i>Sequoia sempervirens</i>	75/16	70/70	70% good	good				X						Crown raising pruning was performed to limb up this tree.	46% overall condition "poor".	
440		X		18.7						18.7		Shamel ash	<i>Fraxinus uhdei</i>	60/30	35/35	35% poor	very poor	W	W					1			Condition estimated prior to spring leafout.	Tree currently in 28% overall condition (Very Poor). Tree suggested by WLCA to be removed.	
441		X		21.2						21.2		Shamel ash	<i>Fraxinus uhdei</i>	60/45	50/50	50% fair	moderate							1			Roots severed during sidewalk replacement	Tree currently in 28% overall condition (Very Poor). Tree suggested by WLCA to be removed.	
442				31.2						31.2		Shamel ash	<i>Fraxinus uhdei</i>	60/45	60/45	53% fair	moderate	W	S								Roots severed during sidewalk replacement. Will need endweight reduction pruning.	Tree appears to be in decline. Current overall condition is 46% (Poor).	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-124)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Co-dominant Mainstems with Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
443	X			41.0						41.0		coast redwood	<i>Sequoia sempervirens</i>	70/20	75/60	66% fair	good						5			Cable installation recommended.	45% overall condition "poor".	
444	X			21.5						21.5		Shamel ash	<i>Fraxinus uhdei</i>	55/30	70/50	60% fair	moderate	W										
445	X			15.4						15.4		Shamel ash	<i>Fraxinus uhdei</i>	60/18	50/50	50% fair	moderate	N			X							
446	X			21.1						21.1		coast redwood	<i>Sequoia sempervirens</i>	70/15	75/75	76% good	good											50% overall condition "fair".
447	X			17.5						17.5		Shamel ash	<i>Fraxinus uhdei</i>	60/20	55/50	52% fair	poor to mod	N										
448	X			15.7						15.7		coast redwood	<i>Sequoia sempervirens</i>	70/10	60/60	60% fair	moderate	E									Tree was limbed up.	60% overall condition "fair".
449	X			18.5						18.5		coast redwood	<i>Sequoia sempervirens</i>	70/10	60/60	60% fair	moderate	E									Tree was limbed up.	60% overall condition "fair".
450	X			15.5						15.5		coast redwood	<i>Sequoia sempervirens</i>	70/10	60/50	55% fair	moderate	E									Tree was limbed up.	60% overall condition "fair".
451	X			19.6						19.6		Shamel ash	<i>Fraxinus uhdei</i>	50/25	70/55	60% fair	good	W										
452				21.5						21.5		Shamel ash	<i>Fraxinus uhdei</i>	55/30	50/35	40% poor	poor to mod	W						0 to 2			Current condition rating is roughly the same as noted in previous years.	
453	X	X		15.0						15.0		Shamel ash	<i>Fraxinus uhdei</i>	50/10	10/10	10% very poor	very poor											
454				29.4						29.4		Shamel ash	<i>Fraxinus uhdei</i>	65/35	50/40	47% poor	poor to mod							12		Roots damaged.	Current condition rating is roughly the same as previously noted in past years.	
455	X			17.7						17.7		Shamel ash	<i>Fraxinus uhdei</i>	45/18	30/35	33% poor	poor	E									Roots damaged.	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 64" A.G. (152-23448)	"Protected Tree" per City of Cupertino Ordinance (10" DBH stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Loaded Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barber Root Crown Injury or Rotting Roots (GR)	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
456				22.3						22.3		Shamel ash	<i>Fraxinus uhdei</i>	60/20	40/35	37% poor	poor	W	W									Same condition rating as noted in prior years.
457				28.5						28.5		Shamel ash	<i>Fraxinus uhdei</i>	95/35	50/80	65% fair	moderate	W										May be declining in condition. Current condition is roughly 45% (Poor).
458				25.1						25.1		Shamel ash	<i>Fraxinus uhdei</i>	60/35	30/40	35% poor	poor to mod							various elevations			Bark stuffing off. Phloem/bark disorder.	Same condition rating as noted in prior years.
459	X			31.9						31.9		Shamel ash	<i>Fraxinus uhdei</i>	75/45	60/80	60% fair	moderate											Roots damaged.
460	X			31.8						31.8		Shamel ash	<i>Fraxinus uhdei</i>	65/45	60/55	59% fair	moderate											Roots damaged.
461				25.5						25.5		Shamel ash	<i>Fraxinus uhdei</i>	55/40	50/50	50% fair	poor to mod											Tree declining. Current overall condition is roughly 35% (Poor). Extensive twig dieback apparent.
462		X		15.3						15.3		Shamel ash	<i>Fraxinus uhdei</i>	40/15	50/40	45% poor	moderate											Tree declining. Current overall condition is roughly 25% (Very Poor). Tissue necrosis and bark inclusion at fork noted. Trees in very poor condition are typically suggested to be removed.
463				21.0						21.0		Shamel ash	<i>Fraxinus uhdei</i>	55/45	75/80	70% good	good	W										Tree appears to be in decline due to chronic drought conditions. Current overall condition roughly 55% (Fair).
464				34.1						34.1		Shamel ash	<i>Fraxinus uhdei</i>	55/30	65/45	48% poor	moderate	E						0 to 5				Tree appears to be in decline due to chronic drought conditions. Current overall condition roughly 40% (Poor).
465				22.8						22.8		Shamel ash	<i>Fraxinus uhdei</i>	60/30	55/45	50% fair	moderate	W										Tree is currently in same condition as noted in previous years.
466				29.3						29.3		Shamel ash	<i>Fraxinus uhdei</i>	65/30	60/45	50% fair	mod to good	E										Tree appears to be in decline due to chronic drought conditions. Current overall condition roughly 40% (Poor).
467		X		25.6						25.6		Shamel ash	<i>Fraxinus uhdei</i>	65/45	50/30	37% poor	moderate											Tree declining. Current overall condition is roughly 25% (Very Poor). Tissue necrosis and bark inclusion at fork noted. Trees in very poor condition are typically suggested to be removed.

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131448)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stems, 20" multi-trunk stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barber Root Crown (Including Roots) (GR)	Stem Decay (Note Elevation)	Co-dominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
468		X		24.6						24.6		Shamel ash	<i>Fraxinus uhdei</i>	55/30	40/40	40% poor	poor										Roots damaged.	Tree declining with apparent extensive twig dieback. Current overall condition is roughly 20% (Very Poor). Tissue necrosis and bark inclusion at fork noted. Tree in very poor condition are typically suggested to be removed.
469				25.2						25.2		Shamel ash	<i>Fraxinus uhdei</i>	50/30	40/30	38% poor	poor	W	S			GR		12			Roots damaged.	Tree is currently in same condition as noted in previous years.
470				27.7						27.7		Shamel ash	<i>Fraxinus uhdei</i>	60/35	45/35	40% poor	poor											Appears to be experiencing normal Fall leaf senescence (leaf drop).
471				14.9						14.9		Shamel ash	<i>Fraxinus uhdei</i>	40/15	45/45	45% poor	poor	W	W									Appears to be experiencing normal Fall leaf senescence (leaf drop).
472				16.4						16.4		Shamel ash	<i>Fraxinus uhdei</i>	50/20	45/45	45% poor	poor	E										Appears to be experiencing normal Fall leaf senescence (leaf drop).
473				31.5						31.5		Shamel ash	<i>Fraxinus uhdei</i>	60/45	75/65	68% fair	good							9 and 10 (not verified)			Roots damaged	Tree appears to be somewhat declining. Current overall condition is roughly 57% (Fair).
474				25.3						25.3		Shamel ash	<i>Fraxinus uhdei</i>	60/30	75/60	65% fair	good	E					GR					Tree appears to be somewhat declining. Current overall condition is roughly 65% (Fair).
475				28.7						28.7		Shamel ash	<i>Fraxinus uhdei</i>	60/45	70/65	68% fair	moderate										Roots damaged.	Tree is declining, with an estimated 43% overall condition rating (Poor). Leaf fall appears to be a combo of normal leaf fall plus twig and branch dieback.
476	X			15.2						15.2		Shamel ash	<i>Fraxinus uhdei</i>	30/25	35/40	38% poor	poor to mod	E										
477	X	X		13.9						13.9		Shamel ash	<i>Fraxinus uhdei</i>	35/20	20/20	20% very poor	very poor											
478	X	X		16.9						16.9		coast redwood	<i>Sequoia sempervirens</i>	40/15	50/50	50% fair	poor											20% overall condition "very poor".
479	X	X		22.1						22.1		coast redwood	<i>Sequoia sempervirens</i>	50/20	0/0	0% dead												0% (Dead).

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131448)	"Protected Tree" per City of Cupertino (10' or more stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots (GR))	Stem Decay (Note Elevation)	Concomitant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
480	X			13.1						13.1		Shamel ash	<i>Fraxinus uhdei</i>	30/18	45/45	45% poor	poor	SE										
481	X			20.0						20.0		Shamel ash	<i>Fraxinus uhdei</i>	35/25	45/45	45% poor	poor	W										
482	X			9.8						9.8		Shamel ash	<i>Fraxinus uhdei</i>	30/10	30/20	25% very poor	poor	W										
483	X			12.7						12.7		Shamel ash	<i>Fraxinus uhdei</i>	30/16	50/40	50% fair	moderate	N			GR							
484	X			15.9						15.9		Shamel ash	<i>Fraxinus uhdei</i>	30/18	60/50	55% fair	moderate											
485	X			13.7						13.7		Shamel ash	<i>Fraxinus uhdei</i>	30/20	55/55	55% fair	moderate	E										
486	X			22.3						22.3		coast redwood	<i>Sequoia sempervirens</i>	50/18	70/70	70% good	moderate										86% overall condition "fair".	
487	X			21.9						21.9		coast redwood	<i>Sequoia sempervirens</i>	50/18	70/70	70% good	moderate										70% overall condition "good".	
488	X			12.4						12.4		Shamel ash	<i>Fraxinus uhdei</i>	30/16	50/35	40% poor	moderate	N				0 to 3						
489	X			8.9						8.9		Shamel ash	<i>Fraxinus uhdei</i>	30/20	55/35	45% poor	moderate											
490	X			14.3						14.3		Shamel ash	<i>Fraxinus uhdei</i>	35/35	55/45	47% poor	poor to mod	W	W									
491	X	X		9.3						9.3		Shamel ash	<i>Fraxinus uhdei</i>	20/12	40/20	27% very poor	poor	W	W				8					
492	X			9.1						9.1		Shamel ash	<i>Fraxinus uhdei</i>	25/18	50/35	40% poor	poor to mod	E										

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown by Existing Roots (GR)	Stem Decay (Note Elevation)	Condominant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
493	X			12.4						12.4		Shamel ash	<i>Fraxinus uhdei</i>	30/18	45/30	35% poor	poor to mod	W	W									
494	X			13.8						13.8		Shamel ash	<i>Fraxinus uhdei</i>	30/30	40/40	40% poor	poor											
495	X	X		18.0						18.0		Shamel ash	<i>Fraxinus uhdei</i>	30/16	28/20	22% very poor	poor	W	W			0 to 8						
496	X	X		7.9						7.9		Shamel ash	<i>Fraxinus uhdei</i>	25/12	30/20	25% very poor	poor	E										
497	X	X		10.2						10.2		Shamel ash	<i>Fraxinus uhdei</i>	30/20	25/30	25% very poor	poor	W	W									
498	X			11.8						11.8		evergreen pear	<i>Pyrus kawakami</i>	20/20	50/40	44% poor	poor	N		5							Fireblight infection.	
499	X	X		4.0						4.0		evergreen pear	<i>Pyrus kawakami</i>	9/6	0/0	0% dead												
500	X	X		21.4						21.4		coast redwood	<i>Sequoia sempervirens</i>	55/15	0/0	0% dead												0% Dead.
501	X	X		19.0						19.0		coast redwood	<i>Sequoia sempervirens</i>	55/15	15/15	15% very poor	very poor								X	Steep slope.	0% Dead.	
502	X	X		24.4						24.4		coast redwood	<i>Sequoia sempervirens</i>	55/12	0/0	0% dead									X		0% Dead.	
503	X			6.7						6.7		evergreen pear	<i>Pyrus kawakami</i>	13/14	40/40	40% poor	poor	S						5				
504	X			9.9	9.0					18.9		oak species	<i>Quercus sp.</i>	35/30	90/50	90% fair	good	S					GR				Steep slope	
505	X			32.3						32.3		coast redwood	<i>Sequoia sempervirens</i>	50/35	70/70	70% good	moderate								X	Steep slope	70% overall condition "good".	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131-148)	"Protected Tree" per City of Cupertino (14" DBH, 10' trunk stem, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots (GR))	Stem Decay (Note Elevation)	Concomitant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
506	X			10.0						10.0		evergreen pear	<i>Pyrus kawakamii</i>	25/15	40/40	40% poor	poor	E	E		X					Fireblight infection.		
507	X	X		7.6						7.6		evergreen pear	<i>Pyrus kawakamii</i>	18/15	20/20	20% very poor	very poor	N	N		X					Fireblight infection.		
508	X			10.9						10.9		evergreen pear	<i>Pyrus kawakamii</i>	25/25	40/30	35% poor	poor	N	N		X					Fireblight infection.		
509	X	X		7.2	6.9	5.5				19.6		southern magnolia	<i>Magnolia grandiflora</i>	25/15	18/15	15% very poor	very poor	N								X		
510	X			28.0						28.0		coast redwood	<i>Sequoia sempervirens</i>	60/25	60/60	60% good	good								X		70% overall condition "good".	
511	X			14.4						14.4		evergreen pear	<i>Pyrus kawakamii</i>	20/25	40/50	44% poor	poor				X					Roots damaged on grade. Fireblight infection.	55% overall condition "fair".	
512	X			6.0						6.0		southern magnolia	<i>Magnolia grandiflora</i>	16/8	50/30	37% poor	moderate				X					X		30% overall condition "poor".
513	X			5.6						5.6		southern magnolia	<i>Magnolia grandiflora</i>	18/10	40/40	40% poor	poor	E								X		
514	X			4.4						4.4		southern magnolia	<i>Magnolia grandiflora</i>	18/6	40/40	40% poor	poor	E								X		
515	X	X		10.5						10.5		evergreen pear	<i>Pyrus kawakamii</i>	25/20	30/30	30% poor	poor	E	E		X					Fireblight infection.	20% overall condition "very poor".	
516	X	X		10.6						10.6		evergreen pear	<i>Pyrus kawakamii</i>	25/20	30/40	35% poor	poor	E	E		X					Fireblight infection.	20% overall condition "very poor".	
517	X	X		6.5						6.5		southern magnolia	<i>Pyrus kawakamii</i>	13/7	40/30	30% poor	poor to mod	E					4 to 7					15% overall condition "very poor".
518	X			23.2						23.2		Shamel ash	<i>Fraxinus uhdei</i>	50/30	55/60	55% fair	poor to mod	W	W								Out of leaf. Overall condition verify in spring after leafout.	

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desires to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 64" A.G. (112'-93" tall)	"Protected Tree" per City of Cupertino Ordinance 101.00 10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Concomitant Masses with Bark Inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCOA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
619	X			18.5						18.5		Monterey pine	<i>Pinus radiata</i>	55/18	60/50	55% fair	poor to mod	E										
620				4.0						4.0		Chinese elm	<i>Ulmus parvifolia</i>	15/12	75/45	57% fair	moderate	N	N		X							
621	X	X		20.2						20.2		Shamel ash	<i>Fraxinus uhdei</i>	55/18	30/25	28% very poor	poor	W										
622		X		14.3						14.3		Shamel ash	<i>Fraxinus uhdei</i>	35/18	10/10	10% very poor	very poor	W						5				
623		X		14.0						14.0		Monterey pine	<i>Pinus radiata</i>	40/12	25/25	25% very poor	poor	S	S									
624				10.6						10.6		Chinese elm	<i>Ulmus parvifolia</i>	40/30	75/75	75% good	good	E			X							
625				17.6						17.6		Shamel ash	<i>Fraxinus uhdei</i>	40/25	35/35	35% poor	poor	W	W									
626				6.7						6.7		Chinese elm	<i>Ulmus parvifolia</i>	18/12	65/50	55% fair	moderate	E			X							
627				8.2						8.2		Shamel ash	<i>Fraxinus uhdei</i>	20/15	70/40	55% fair	good	S	S									
628				11.1						11.1		Chinese elm	<i>Ulmus parvifolia</i>	25/35	70/60	66% fair	moderate				X							
629				12.7						12.7		Shamel ash	<i>Fraxinus uhdei</i>	30/20	45/45	45% poor	poor to mod	W	W									
630				10.4						10.4		Chinese elm	<i>Ulmus parvifolia</i>	30/30	75/65	73% good	moderate	S			X							
631				9.2						9.2		Shamel ash	<i>Fraxinus uhdei</i>	30/18	50/40	45% poor	W	S										

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desire to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown by Existing Roots (GR)	Stem Decay (Note Elevation)	Co-dominant Mainstems with buttresses or inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCOA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
632				12.3						12.3		Chinese elm	<i>Ulmus parvifolia</i>	50/40	65/70	70% good	moderate				X							
633				13.2						13.2		Shamel ash	<i>Fraxinus uhdei</i>	30/30	60/80	60% fair	moderate											
634				10.2						10.2		Chinese elm	<i>Ulmus parvifolia</i>	40/20	70/60	70% good	good				X							
635				20.6						20.6		Shamel ash	<i>Fraxinus uhdei</i>	35/35	60/50	55% fair	good											
636		X		12.1						12.1		Shamel ash	<i>Fraxinus uhdei</i>	30/20	20/20	20% very poor	very poor											
637				13.1						13.1		Chinese elm	<i>Ulmus parvifolia</i>	35/35	60/55	60% fair	moderate				X							
638				19.9						19.9		Shamel ash	<i>Fraxinus uhdei</i>	35/35	50/45	50% fair	poor to mod											
639				12.7						12.7		Chinese elm	<i>Ulmus parvifolia</i>	25/30	75/65	70% good	good	E	E		X							
640				21.9						21.9		Shamel ash	<i>Fraxinus uhdei</i>	45/45	65/55	60% fair	moderate					GR						
641				12.5						12.5		Chinese elm	<i>Ulmus parvifolia</i>	30/30	60/50	55% fair	moderate				X							
642	X			13.7						13.7		Shamel ash	<i>Fraxinus uhdei</i>	35/25	50/50	50% fair	moderate	W	W									
643	X			15.2						15.2		Shamel ash	<i>Fraxinus uhdei</i>	40/25	55/30	34% poor	moderate	S				GR		5				
644				14.1						14.1		Chinese elm	<i>Ulmus parvifolia</i>	40/35	70/60	67% fair	moderate	E	E		X							

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112°-134°)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots (GR))	Stem Decay (Note Elevation)	Codominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
545	X			17.4						17.4		Shamel ash	<i>Fraxinus uhdei</i>	40/30	75/55	64% fair	good	W									Tight forks at 6 feet.	
546				11.2						11.2		Chinese elm	<i>Ulmus parvifolia</i>	30/35	70/80	66% fair	moderate	E	E		X							
547	X	X		12.5						12.5		Shamel ash	<i>Fraxinus uhdei</i>	40/20	25/25	25% very poor	very poor	W	W			GR						
548				16.0	13.0					29.0		Monterey pine	<i>Pinus radiata</i>	55/35	50/35	38% poor	poor to mod	E						4			Diameters of mainstems estimated.	
549	X			16.3						16.3		Shamel ash	<i>Fraxinus uhdei</i>	45/30	65/55	61% fair	moderate	W										
550	X			17.5						17.5		Shamel ash	<i>Fraxinus uhdei</i>	50/30	75/65	70% good	good	W										
551				23.0						23.0		Monterey pine	<i>Pinus radiata</i>	50/35	40/40	40% poor	poor	E	E								Diameter estimated	
552				11.2						11.2		Chinese elm	<i>Ulmus parvifolia</i>	25/25	60/60	60% fair	moderate	N	N		X							
553	X			14.2						14.2		Shamel ash	<i>Fraxinus uhdei</i>	30/20	75/65	70% good	good	W	W									
554				4.0						4.0		elm species	<i>Ulmus sp.</i>	20/10	75/75	75% good	good										Tree out of leaf. ID not verified at time of writing.	
555	X	X		9.8						9.8		Shamel ash	<i>Fraxinus uhdei</i>	20/15	10/10	10% very poor	very poor						0 to 10					
556	X			16.8						16.8		Shamel ash	<i>Fraxinus uhdei</i>	30/30	55/60	59% fair	moderate						0 to 1				Vehicle impact occr.	
557	X			12.9						12.9		Shamel ash	<i>Fraxinus uhdei</i>	50/25	35/35	35% poor	poor	W	W									

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" dbh stems, 20" multi-trunked stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Ratings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Leaned Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots (GR))	Stem Decay (Note Elevation)	Condominium Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
558				13.8						13.8		Chinese elm	<i>Ulmus parvifolia</i>	35/35	75/70	75% good	good	N	N		X								
559	X			15.9						15.9		Shamel ash	<i>Fraxinus uhdei</i>	50/25	55/50	54% fair	poor to mod	W											
560				11.5						11.5		Chinese elm	<i>Ulmus parvifolia</i>	30/30	65/70	68% fair	moderate	E			X								
561				13.7						13.7		Chinese elm	<i>Ulmus parvifolia</i>	30/30	70/50	60% fair	good	N			X								
562	X			13.8						13.8		Shamel ash	<i>Fraxinus uhdei</i>	30/30	40/35	38% poor	poor	N							X				
563				23.6						23.6		Monterey pine	<i>Pinus radiata</i>	35/30	30/30	30% poor	poor	N										Bark beetle frass noted at root crown.	
564	X	X		14.8						14.8		Shamel ash	<i>Fraxinus uhdei</i>	35/25	25/20	22% very poor	very poor	W	W										
565				19.0						19.0		Monterey pine	<i>Pinus radiata</i>	35/25	45/45	45% poor	poor to mod												
566	X			17.5						17.5		Shamel ash	<i>Fraxinus uhdei</i>	45/35	40/40	40% poor	moderate	W	W										
567	X	X		16.2						16.2		Shamel ash	<i>Fraxinus uhdei</i>	30/15	25/25	25% very poor	very poor												
568	X			18.0						18.0		Shamel ash	<i>Fraxinus uhdei</i>	45/35	75/65	70% good	good	W											
569	X			13.5						13.5		Shamel ash	<i>Fraxinus uhdei</i>	30/25	70/65	68% fair	good	W											
570	X			12.7						12.7		Shamel ash	<i>Fraxinus uhdei</i>	18/10	50/30	40% poor	moderate	W	W		X								

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/458)	"Protected Tree" per City of Cupertino (10" dbh stem, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Co-dominant Mainstems with Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCIA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018				
571				22.7						22.7		coast redwood	<i>Sequoia sempervirens</i>	55/20	60/60	60% fair	moderate												X		60% overall condition "fair".	
572				31.6						31.6		coast redwood	<i>Sequoia sempervirens</i>	55/20	60/45	65% fair	moderate							25						X		60% overall condition "fair".
573				16.5						16.5		coast redwood	<i>Sequoia sempervirens</i>	50/15	60/50	53% fair	moderate													X		37% overall condition "poor".
574				25.6						25.6		coast redwood	<i>Sequoia sempervirens</i>	55/15	60/80	60% fair	moderate													X		46% overall condition "poor".
575				12.0						12.0		coast redwood	<i>Sequoia sempervirens</i>	35/10	60/40	47% poor	moderate													X		35% overall condition "poor".
576				32.1	13.4	12.2				57.7		coast redwood	<i>Sequoia sempervirens</i>	55/25	70/70	70% good	poor													X		65% overall condition "fair".
577				27.6						27.6		coast redwood	<i>Sequoia sempervirens</i>	50/15	40/30	36% poor	poor							various elevations						X		45% overall condition "poor".
578				17.1						17.1		coast redwood	<i>Sequoia sempervirens</i>	50/12	60/60	60% fair	moderate													X		60% overall condition "fair".
579				17.7						17.7		coast redwood	<i>Sequoia sempervirens</i>	50/12	65/65	65% fair	moderate													X		40% overall condition "poor".
580				31.5	9.0					40.5		coast redwood	<i>Sequoia sempervirens</i>	60/20	75/75	75% good	moderate													X		65% overall condition "fair".
581				21.5	10.5					32.0		coast redwood	<i>Sequoia sempervirens</i>	60/15	60/80	60% fair	moderate													X		45% overall condition "poor".
582				31.7						31.7		coast redwood	<i>Sequoia sempervirens</i>	70/25	90/80	80% good	good													X		60% overall condition "fair".
583		X		8.3						8.3		coast redwood	<i>Sequoia sempervirens</i>	35/6	20/20	20% very poor	very poor													X		20% overall condition "very poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino (10" DBH, 10' multi-stem, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (SR)	Stem Decay (Note Elevation)	Condominant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCIA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
584				28.9						28.9		coast redwood	<i>Sequoia sempervirens</i>	70/20	65/65	65% fair	moderate									X		60% overall condition "fair".	
585				15.9	7.3					23.2		coast redwood	<i>Sequoia sempervirens</i>	50/15	65/65	65% fair	moderate										X		50% overall condition "fair".
586				25.3						25.3		coast redwood	<i>Sequoia sempervirens</i>	50/13	65/65	65% fair	moderate										X		46% overall condition "poor".
587				19.9						19.9		coast redwood	<i>Sequoia sempervirens</i>	50/14	65/65	65% fair	moderate										X		52% overall condition "fair".
588				21.0						21.0		coast redwood	<i>Sequoia sempervirens</i>	50/12	60/60	60% fair	moderate										X		47% overall condition "poor".
589				23.3						23.3		coast redwood	<i>Sequoia sempervirens</i>	60/12	65/65	65% fair	moderate										X		62% overall condition "fair".
590				25.5	5.0					30.5		coast redwood	<i>Sequoia sempervirens</i>	60/10	30/40	35% poor	poor										X		35% overall condition "poor".
591				21.2						21.2		coast redwood	<i>Sequoia sempervirens</i>	55/10	50/40	45% poor	poor										X		50% overall condition "fair".
592		X		25.0						25.0		coast redwood	<i>Sequoia sempervirens</i>	60/8	25/35	25% very poor	very poor										X		35% overall condition "poor".
593				14.4						14.4		coast redwood	<i>Sequoia sempervirens</i>	40/10	30/30	30% poor	poor to mod	S					0 to 5				X		30% overall condition "poor".
594				18.1						18.1		coast redwood	<i>Sequoia sempervirens</i>	50/13	65/55	50% fair	moderate										X		45% overall condition "poor".
595				19.2						19.2		coast redwood	<i>Sequoia sempervirens</i>	25/15	40/25	30% poor	moderate			25 (apical meristem)							X		30% overall condition "poor".
596				12.8						12.8		coast redwood	<i>Sequoia sempervirens</i>	55/6	50/40	45% poor	poor to mod	S									X		35% overall condition "poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desires to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-124)	"Protected Tree" per City of Cupertino Ordinance (10" DBH stems, 20" multi-trunk stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Weak Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Root Rotting Roots) (GR)	Stem Decay (Note Elevation)	Codominant Mainstem with Fork Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
697		X		12.7	8.3					21.0		coast redwood	<i>Sequoia sempervirens</i>	35/10	0/0	0% dead	dead											0% (Dead)	
698		X		19.5						19.5		coast redwood	<i>Sequoia sempervirens</i>	50/6	30/10	20% very poor	very poor										X	Shear crack through the mainstem longitudinally.	20% overall condition "very poor".
699				27.0						27.0		coast redwood	<i>Sequoia sempervirens</i>	75/25	65/65	85% fair	moderate										X		80% overall condition "fair".
600				18.8						18.8		coast redwood	<i>Sequoia sempervirens</i>	65/8	50/40	45% poor	poor	W									X	Canker developing on trunk at 5 feet elevation.	35% overall condition "poor".
601				25.5						25.5		coast redwood	<i>Sequoia sempervirens</i>	70/14	40/40	40% poor	poor										X		30% overall condition "poor".
602				19.7	7.7					21.4		coast redwood	<i>Sequoia sempervirens</i>	40/9	40/30	35% poor							BRC				X		30% overall condition "poor".
608		X		17.3						17.3		coast redwood	<i>Sequoia sempervirens</i>	50/15	25/25	25% very poor	very poor										X		25% overall condition "very poor".
604		X		16.7						16.7		coast redwood	<i>Sequoia sempervirens</i>	50/12	25/25	25% very poor	very poor	W									X		25% overall condition "very poor".
605		X		6.6						6.6		coast redwood	<i>Sequoia sempervirens</i>	35/7	25/25	25% very poor	very poor										X		0% (Dead)
606		X		26.4						26.4		coast redwood	<i>Sequoia sempervirens</i>	60/18	20/30	25% very poor	poor										X	Codominant mainstem fork at 20 feet.	25% overall condition "very poor".
607		X		15.4						15.4		coast redwood	<i>Sequoia sempervirens</i>	55/10	15/20	17% very poor	very poor										X		15% overall condition "very poor".
608		X		22.4						22.4		coast redwood	<i>Sequoia sempervirens</i>	60/14	30/30	30% poor	poor	W									X		27% overall condition "very poor".
609				27.1						27.1		coast redwood	<i>Sequoia sempervirens</i>	70/18	35/35	35% poor	poor										X		30% overall condition "poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desires to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk # - Incline @ 54° A.G. (112/33/448)	"Protected Tree" per City of Cupertino Ordinance (10' or more stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod, Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Condominant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCOA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
610		X		13.0						13.0		coast redwood	<i>Sequoia sempervirens</i>	30/6	40/20	28% very poor	poor to mod									X		25% overall condition "very poor".
611				39.4						39.4		coast redwood	<i>Sequoia sempervirens</i>	75/15	70/70	70% good	good									X	Cankers on trunk at 6 feet.	75% overall condition "good".
612				8.0						8.0		coast redwood	<i>Sequoia sempervirens</i>	25/4	0/0	0% dead	dead									X		0% (Dead)
613				28.5						28.5		coast redwood	<i>Sequoia sempervirens</i>	75/18	75/75	75% good	good									X		65% overall condition "fair".
614				32.3						32.3		coast redwood	<i>Sequoia sempervirens</i>	65/15	70/70	70% good	mod to good									X		60% overall condition "fair".
615				15.4						15.4		coast redwood	<i>Sequoia sempervirens</i>	50/10	50/50	50% fair	poor									X		40% overall condition "poor".
616				24.4						24.4		coast redwood	<i>Sequoia sempervirens</i>	65/11	55/50	55% fair	mod									X		47% overall condition "poor".
617				10.1						10.1		coast redwood	<i>Sequoia sempervirens</i>	25/9	65/45	55% fair	mod									X		40% overall condition "poor".
618				28.7						28.7		coast redwood	<i>Sequoia sempervirens</i>	70/18	55/50	55% fair	poor to mod									X		55% overall condition "fair".
619				12.5						12.5		coast redwood	<i>Sequoia sempervirens</i>	45/10	50/40	50% fair	moderate									X		40% overall condition "poor".
620				15.3						15.3		coast redwood	<i>Sequoia sempervirens</i>	35/10	50/40	50% fair	moderate									X		40% overall condition "poor".
621				12.6						12.6		coast redwood	<i>Sequoia sempervirens</i>	45/11	60/50	55% fair	moderate									X		55% overall condition "fair".
622				23.4						23.4		coast redwood	<i>Sequoia sempervirens</i>	75/15	50/50	50% fair	poor									X		55% overall condition "fair".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/148)	"Protected Tree" per City of Cupertino Ordinance (10" DBH, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Without Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Condominium Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCOA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
623				25.1						25.1		coast redwood	<i>Sequoia sempervirens</i>	75/15	50/50	50% fair	poor											57% overall condition "fair".	
624				15.9						15.9		coast redwood	<i>Sequoia sempervirens</i>	70/12	50/40	49% poor	poor												50% overall condition "fair".
625				19.7	6.4					26.1		coast redwood	<i>Sequoia sempervirens</i>	65/10	50/50	50% fair	poor												50% overall condition "fair".
626				19.6						19.6		coast redwood	<i>Sequoia sempervirens</i>	60/10	60/50	55% fair	poor to mod												50% overall condition "fair".
627				22.9						22.9		coast redwood	<i>Sequoia sempervirens</i>	75/12	60/50	53% fair	poor												50% overall condition "fair".
628		X		14.1						14.1		coast redwood	<i>Sequoia sempervirens</i>	45/6	20/30	25% very poor	very poor												10% overall condition "very poor".
629		X		11.9						11.9		coast redwood	<i>Sequoia sempervirens</i>	45/7	10/10	10% very poor	very poor												0% (Dead)
630		X		12.0						12.0		coast redwood	<i>Sequoia sempervirens</i>	35/10	35/35	35% poor	poor												25% overall condition "very poor".
631		X		16.2						16.2		coast redwood	<i>Sequoia sempervirens</i>	45/15	20/20	20% very poor	very poor							25					20% overall condition "very poor".
632				15.5						15.5		coast redwood	<i>Sequoia sempervirens</i>	50/18	40/30	35% poor	poor to mod												30% overall condition "poor".
633		X		9.3						9.3		coast redwood	<i>Sequoia sempervirens</i>	40/10	35/35	35% poor	poor												20% overall condition "very poor".
634		X		11.5						11.5		coast redwood	<i>Sequoia sempervirens</i>	50/12	20/20	20% very poor	very poor												10% overall condition "very poor".
635		X		18.4						18.4		coast redwood	<i>Sequoia sempervirens</i>	50/12	10/10	10% very poor	very poor												0% (Dead)

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino (10" DBH stems, 20" multi-trunk stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Reading (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Without Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Co-dominant Mainstems with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018	
636		X		20.9						20.9		coast redwood	<i>Sequoia sempervirens</i>	70/18	25/25	25% very poor	very poor									X		18% overall condition (very poor).	
637		X		13.8						13.8		coast redwood	<i>Sequoia sempervirens</i>	50/15	25/25	25% very poor	very poor										X	One of two mainstems was removed at grade.	5% overall condition (very poor).
638				27.9						27.9		coast redwood	<i>Sequoia sempervirens</i>	80/25	75/75	75% good	mod to good										X		65% overall condition (fair).
639		X		10.8						10.8		coast redwood	<i>Sequoia sempervirens</i>	35/8	25/25	25% very poor	very poor										X	Difficult to assess visually.	16% overall condition "very poor".
640				21.1						21.1		coast redwood	<i>Sequoia sempervirens</i>	70/12	40/40	40% poor	poor	W									X		30% overall condition "poor".
641				19.6						19.6		coast redwood	<i>Sequoia sempervirens</i>	60/12	65/65	60% fair	moderate		N								X		45% overall condition "poor".
642				30.3						30.3		coast redwood	<i>Sequoia sempervirens</i>	75/20	50/50	50% fair	moderate										X		42% overall condition "poor".
643				24.3						24.3		coast redwood	<i>Sequoia sempervirens</i>	70/18	60/55	56% fair	moderate										X		50% overall condition "fair".
644				11.1						11.1		coast redwood	<i>Sequoia sempervirens</i>	55/12	50/50	50% fair	poor										X		40% overall condition "poor".
645				22.8						22.8		coast redwood	<i>Sequoia sempervirens</i>	70/12	40/35	39% poor	poor										X		25% overall condition "very poor".
646		X		14.8	7.5					22.3		coast redwood	<i>Sequoia sempervirens</i>	50/10	45/20	27% very poor	poor	W									X	8-trunk form at certain heights.	24% overall condition "very poor".
647				31.5						31.5		coast redwood	<i>Sequoia sempervirens</i>	75/25	90/80	80% good	good										X		70% overall condition "good".
648		X		4.9						4.9		coast redwood	<i>Sequoia sempervirens</i>	25/5	30/30	30% poor	poor		S								X		17% overall condition "very poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/48)	"Protected Tree" per City of Cupertino Ordinance (10" DBH, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Condominant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018			
649				25.7						25.7		coast redwood	<i>Sequoia sempervirens</i>	65/12	50/50	50% fair	moderate											X		50% overall condition "fair".	
650				22.4						22.4		coast redwood	<i>Sequoia sempervirens</i>	65/16	50/50	50% fair	moderate												X		50% overall condition "fair".
651				29.6						29.6		coast redwood	<i>Sequoia sempervirens</i>	70/20	60/40	55% fair	moderate												X		67% overall condition "fair".
652				15.9						15.9		coast redwood	<i>Sequoia sempervirens</i>	65/16	40/40	40% poor	poor												X		45% overall condition "poor".
653		X		16.0						16.0		coast redwood	<i>Sequoia sempervirens</i>	60/10	20/20	20% very poor	very poor												X		0% (Dead)
654		X		20.5						20.5		coast redwood	<i>Sequoia sempervirens</i>	55/6	30/15	20% very poor	very poor												X		16% overall condition "very poor".
655				25.0	10.0					35.0		coast redwood	<i>Sequoia sempervirens</i>	70/15	50/50	50% fair	poor to mod							3					X		50% overall condition "fair".
656				27.3						27.3		coast redwood	<i>Sequoia sempervirens</i>	75/15	60/40	50% fair	poor to mod								6				X		56% overall condition "fair".
657				19.8						19.8		coast redwood	<i>Sequoia sempervirens</i>	70/15	45/45	45% poor	poor	W											X		48% overall condition "poor".
658				30.8						30.8		coast redwood	<i>Sequoia sempervirens</i>	70/18	30/35	30% poor	poor							4 to 8				X		45% overall condition "poor".	
659		X		10.0						10.0		coast redwood	<i>Sequoia sempervirens</i>	35/4	0/0	0% dead	dead												X		0% (Dead)
660		X		23.0						23.0		coast redwood	<i>Sequoia sempervirens</i>	70/15	30/20	25% very poor	very poor												X	8-trunk form between 60 and 65 feet elevation.	30% overall condition "poor".
661		X		12.4						12.4		coast redwood	<i>Sequoia sempervirens</i>	30/8	50/30	35% poor	moderate							20					X		28% overall condition "very poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desire to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 4 1/2' A.G. (112-131/448)	"Protected Tree" per City of Cupertino Ordinance (10" DBH, 20" multi-trunk stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Loaded Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Out Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown by Existing Roots (GR)	Stem Decay (Note Elevation)	Concomitant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018		
662				17.7						17.7		coast redwood	<i>Sequoia sempervirens</i>	50/15	60/45	50% fair	moderate												50% overall condition "fair".	
663				11.2						11.2		coast redwood	<i>Sequoia sempervirens</i>	50/10	55/50	50% fair	poor to mod												40% overall condition "poor".	
664				11.0						11.0		coast redwood	<i>Sequoia sempervirens</i>	50/10	50/50	50% fair	poor												40% overall condition "poor".	
665				20.4						20.4		coast redwood	<i>Sequoia sempervirens</i>	65/18	60/55	58% fair	moderate												58% overall condition "fair".	
666				20.9						20.9		coast redwood	<i>Sequoia sempervirens</i>	70/25	40/50	45% poor	poor												45% overall condition "poor".	
667				16.7						16.7		coast redwood	<i>Sequoia sempervirens</i>	65/18	40/50	45% poor	poor												40% overall condition "poor".	
668				9.1						9.1		coast redwood	<i>Sequoia sempervirens</i>	40/7	30/35	35% poor	poor												30% overall condition "poor".	
669		X		9.9						9.9		coast redwood	<i>Sequoia sempervirens</i>	40/7	30/30	30% poor	poor										X	This tree has a PG&E guy strap around its trunk which may eventually girdle the stem, possibly causing loss of stability within the stem cross section.	10% overall condition "very poor".	
670		X		10.7						10.7		coast redwood	<i>Sequoia sempervirens</i>	40/6	20/20	20% very poor	very poor												15% overall condition "very poor".	
671		X		7.1						7.1		coast redwood	<i>Sequoia sempervirens</i>	30/6	25/25	25% very poor	very poor												15% overall condition "very poor".	
672		X		14.9						14.9		coast redwood	<i>Sequoia sempervirens</i>	50/12	40/40	40% poor	poor												25% overall condition "very poor".	
673				22.2						22.2		Shamel ash	<i>Fraxinus uhdei</i>	50/25	30/35	35% poor	poor													
674				24.2						24.2		Shamel ash	<i>Fraxinus uhdei</i>	55/25	35/40	35% poor	poor													

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/458)	"Protected Tree" per City of Cupertino (10' or more dbh, 20' multi-trunk stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Leaked Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots (GR))	Stem Decay (Note Elevation)	Co-dominant Mainstems with Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
675		X		15.0						15.0		Shamel ash	<i>Fraxinus uhdei</i>	50/15	20/30	25% very poor	very poor						At all elevations			X		
676				16.6						16.6		Shamel ash	<i>Fraxinus uhdei</i>	95/18	30/30	30% poor	very poor							Various elevations		X		
677		X		17.6						17.6		Shamel ash	<i>Fraxinus uhdei</i>	65/18	10/10	10% very poor	very poor						At all elevations			X		
678				13.4						13.4		Shamel ash	<i>Fraxinus uhdei</i>	90/18	45/45	45% poor	poor to mod	E								X		
679				12.7						12.7		Shamel ash	<i>Fraxinus uhdei</i>	50/14	40/30	35% poor	poor	E					6			X		
680				15.6						15.6		Shamel ash	<i>Fraxinus uhdei</i>	90/25	50/35	40% poor	poor to mod	E								X		
681				17.3						17.3		Shamel ash	<i>Fraxinus uhdei</i>	95/25	45/45	45% poor	moderate	E								X		
682				14.2						14.2		Shamel ash	<i>Fraxinus uhdei</i>	50/25	45/30	35% poor	poor to mod	E						9		X		
683		X		18.7						18.7		Shamel ash	<i>Fraxinus uhdei</i>	95/30	25/10	15% very poor	very poor	E	E				5 to 6			X	Possible destabilized root plate. High risk tree. Remove.	
684		X		12.2						12.2		Shamel ash	<i>Fraxinus uhdei</i>	50/20	15/15	15% very poor	very poor									X		
685		X		10.5						10.5		Shamel ash	<i>Fraxinus uhdei</i>	45/20	15/15	15% very poor	very poor	E	E							X		
686				4.0						4.0		coast redwood	<i>Sequoia sempervirens</i>	15/6	50/50	50% fair	moderate									X		50% overall condition "fair".
687	X			11.4						11.4		Shamel ash	<i>Fraxinus uhdei</i>	45/25	40/35	37% poor	poor to mod	E	E							X		

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688	X			4.5						4.5		coast redwood	<i>Sequoia sempervirens</i>	20/6	70/70	70% good	moderate											85% overall condition "fair".	
689	X	X		15.9						15.9		Shamel ash	<i>Fraxinus uhdei</i>	65/20	10/10	10% very poor	very poor	E	E										
690	X			4.9						4.9		coast redwood	<i>Sequoia sempervirens</i>	18/6	70/70	70% good	moderate											85% overall condition "fair".	
691	X	X		10.8						10.8		Shamel ash	<i>Fraxinus uhdei</i>	35/25	18/15	15% very poor	very poor	E			X								
692	X			22.5						22.5		Shamel ash	<i>Fraxinus uhdei</i>	75/35	65/50	58% fair	mod to good	E	E										
693	X			28.0						28.0		Shamel ash	<i>Fraxinus uhdei</i>	70/40	65/50	57% fair	mod to good	E	E					9					
694	X			21.3						21.3		Shamel ash	<i>Fraxinus uhdei</i>	70/35	40/40	40% poor	poor							18					
695	X			28.3						28.3		Shamel ash	<i>Fraxinus uhdei</i>	70/35	60/50	55% fair	moderate	E	E								X	Roots severed with decay, on west side of root system.	
696	X			23.9						23.9		Shamel ash	<i>Fraxinus uhdei</i>	75/30	50/50	50% fair	poor to mod	E											
697	X			25.3						25.3		Shamel ash	<i>Fraxinus uhdei</i>	75/30	45/35	43% poor	poor to mod	E					GR		11				
698	X	X		8.2						8.2		coast redwood	<i>Sequoia sempervirens</i>	28/10	55/80	55% fair	poor to mod												10% overall condition "very poor".
699	X	X		8.4						8.4		coast redwood	<i>Sequoia sempervirens</i>	28/10	0/0	0% dead	dead												0% (Dead).
700	X	X		7.5						7.5		coast redwood	<i>Sequoia sempervirens</i>	28/10	0/0	0% dead	dead												0% (Dead).

Tree Tag #	To be Removed Per Current Site Plan	Author	Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131/448)	"Protected Tree" per City of Cupertino (10" dbh, 10' multi-stem, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod, Good, Etc.)	Loaded Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/Without Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Condominium Mainstems with Inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCIA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
701	X	X			8.2						8.2		coast redwood	<i>Sequoia sempervirens</i>	25/7	40/40	40% poor	poor									X		0% (Dead).
702	X	X			8.1						8.1		coast redwood	<i>Sequoia sempervirens</i>	25/7	10/10	10% very poor	very poor									X		0% (Dead).
703	X				20.3						20.3		coast redwood	<i>Sequoia sempervirens</i>	40/20	40/40	40% poor	poor to mod									X		50% overall condition "fair".
704		X			11.3						11.3		coast redwood	<i>Sequoia sempervirens</i>	30/8	0/0	0% dead	dead									X		0% (Dead).
705		X			10.3						10.3		coast redwood	<i>Sequoia sempervirens</i>	30/4	5/5	5% very poor	very poor									X		4% overall condition "very poor".
706		X			11.0						11.0		coast redwood	<i>Sequoia sempervirens</i>	30/6	10/10	10% very poor	very poor					1				X		13% overall condition "very poor".
707		X			5.8						5.8		coast redwood	<i>Sequoia sempervirens</i>	25/6	10/10	10% very poor	very poor									X		7% overall condition "very poor".
708		X			11.5						11.5		coast redwood	<i>Sequoia sempervirens</i>	30/6	40/40	40% poor	poor									X		16% overall condition "very poor".
709		X			4.2						4.2		coast redwood	<i>Sequoia sempervirens</i>	20/4	0/0	0% dead	dead									X		0% (Dead).
710					12.3						12.3		coast redwood	<i>Sequoia sempervirens</i>	35/6	40/40	40% poor										X		35% overall condition "poor".
711		X			11.3						11.3		coast redwood	<i>Sequoia sempervirens</i>	40/4	10/10	10% very poor	very poor									X		0% (Dead).
712					8.4						8.4		coast redwood	<i>Sequoia sempervirens</i>	30/6	30/30	30% poor	poor									X		30% overall condition "poor".
713					11.4						11.4		coast redwood	<i>Sequoia sempervirens</i>	35/6	40/40	40% poor	poor									X		40% overall condition "poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk @ 54' A.G. (112-23-448)	"Protected Tree" per City of Cupertino Ordinance (10' or more stem, 20" multi-trunk, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Reading (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Etc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Split/rot Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots) (GR)	Stem Decay (Note Elevation)	Condominant Masses with Bark Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018			
714		X		7.3						7.3		coast redwood	<i>Sequoia sempervirens</i>	30/6	15/15	15% very poor	very poor											X		15% overall condition "very poor".	
715				19.5						19.5		coast redwood	<i>Sequoia sempervirens</i>	50/15	45/45	45% poor	poor												X		35% overall condition "poor".
716		X		4.3						4.3		coast redwood	<i>Sequoia sempervirens</i>	17/5	0/0	0% dead	dead												X		0% (Dead).
717		X		10.1						10.1		coast redwood	<i>Sequoia sempervirens</i>	30/7	20/20	20% very poor	very poor												X		25% overall condition "very poor".
718		X		7.0						7.0		coast redwood	<i>Sequoia sempervirens</i>	20/4	0/0	0% dead	dead												X		0% (Dead).
719		X		11.4						11.4		coast redwood	<i>Sequoia sempervirens</i>	40/15	0/0	0% dead	dead												X		0% (Dead).
720		X		9.1						9.1		coast redwood	<i>Sequoia sempervirens</i>	50/7	0/0	0% dead	dead												X		0% (Dead).
721		X		15.3						15.3		coast redwood	<i>Sequoia sempervirens</i>	50/12	10/10	10% very poor	very poor												X		14% overall condition "very poor".
722		X		11.5						11.5		coast redwood	<i>Sequoia sempervirens</i>	50/10	20/20	20% very poor	very poor												X		17% overall condition "very poor".
723				21.0						21.0		Monterey pine	<i>Pinus radiata</i>	55/20	50/40	48% poor	moderate	E	E										X		40% overall condition "poor".
724		X		13.9						13.9		coast redwood	<i>Sequoia sempervirens</i>	50/9	15/15	15% very poor	very poor												X		15% overall condition "very poor".
725		X		22.0						22.0		Monterey pine	<i>Pinus radiata</i>	55/25	35/40	36% poor	poor												X		27% overall condition "very poor".
726		X		20.9						20.9		Monterey pine	<i>Pinus radiata</i>	50/25	30/25	28% very poor	very poor	SE	SE										X		23% overall condition "very poor".

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 4' A.G. (112-13448)	"Protected Tree" per City of Cupertino (10" DBH, 20" multi-stem, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots (GR))	Stem Decay (Note Elevation)	Co-dominant Mainstems with buttresses or inclusions (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
727		X		13.5						13.5		coast redwood	<i>Sequoia sempervirens</i>	50/12	40/25	30% poor	poor											15% overall condition "very poor".
728		X		12.8						12.8		coast redwood	<i>Sequoia sempervirens</i>	45/10	10/15	13% very poor	very poor	E										0% (Dead).
729				9.0						9.0		coast redwood	<i>Sequoia sempervirens</i>	40/5	60/30	45% poor	moderate											35% overall condition "poor".
730				14.0						14.0		coast redwood	<i>Sequoia sempervirens</i>	50/9	50/50	50% fair	moderate											40% overall condition "poor".
731	X	X		14.7						14.7		Shamel ash	<i>Fraxinus uhdei</i>	55/25	25/25	25% very poor	very poor	E	E									
732	X	X		24.3						24.3		Shamel ash	<i>Fraxinus uhdei</i>	55/25	25/25	25% very poor	very poor	E				GR		7				
733	X			19.2						19.2		Shamel ash	<i>Fraxinus uhdei</i>	55/30	40/35	38% poor	poor	E					1 foot (car impact)					
734				17.1						17.1		Shamel ash	<i>Fraxinus uhdei</i>	45/30	35/35	35% poor	poor											Circling roots. Roots damaged on grade.
735		X		17.5						17.5		Shamel ash	<i>Fraxinus uhdei</i>	55/25	20/20	20% very poor	very poor	E					1 foot (car impact)					
736		X		19.1						19.1		Shamel ash	<i>Fraxinus uhdei</i>	45/35	25/25	25% very poor	very poor						Various elevations					
737				20.7						20.7		Shamel ash	<i>Fraxinus uhdei</i>	55/30	30/40	35% poor	poor	E						20				Roots severed and damaged on grade.
738				21.7						21.7		Shamel ash	<i>Fraxinus uhdei</i>	50/30	40/40	40% poor	poor	S					GR					
739	X			23.7						23.7		Shamel ash	<i>Fraxinus uhdei</i>	65/30	25/25	25% very poor	very poor	E										

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks Removal Due to Very Poor Condition or Elevated Risk of Failure	Project Team Desires to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (152-154)	"Protected Tree" per City of Cupertino Ordinance 10" dbh stem, 20" multi-branch specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Readings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Med., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Spillout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown Roots (GR)	Stem Decay (Note Elevation)	Code-dominant Mainstems with Inclusions (Note Height)	Root Extension Restricted in Planter	Root Machine Deficit ("Through Space")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
740				28.0						28.0		Shamel ash	<i>Fraxinus uhdei</i>	45/35	65/50	56% fair	good				X	GR		X	X			
741				24.5						24.5		Shamel ash	<i>Fraxinus uhdei</i>	50/30	40/40	40% poor	poor				X			X	X			
742				27.2						27.2		Shamel ash	<i>Fraxinus uhdei</i>	50/30	50/40	48% poor	moderate							Various elevations	X	X		
743				30.1						30.1		Shamel ash	<i>Fraxinus uhdei</i>	50/40	60/45	50% fair	moderate								X	X		
744	X			25.2						25.2		Shamel ash	<i>Fraxinus uhdei</i>	55/30	50/40	45% poor	moderate				X				X	X	Roots pruned near mainstem.	
745	X			14.2						14.2		Shamel ash	<i>Fraxinus uhdei</i>	30/20	35/30	35% poor	poor				X		9		X	X		
746				24.1						24.1		Shamel ash	<i>Fraxinus uhdei</i>	50/25	60/60	55% fair	moderate	E			X				X			
747				18.6						18.6		Shamel ash	<i>Fraxinus uhdei</i>	60/25	60/30	38% poor	moderate	E				GR		various elevations	X			
748				21.7						21.7		Shamel ash	<i>Fraxinus uhdei</i>	55/30	50/45	48% poor	moderate	E				GR serious condition.			X			
749	X			18.0						18.0		Shamel ash	<i>Fraxinus uhdei</i>	50/20	30/30	30% poor	poor	E			X				X			
750				17.3						17.3		Shamel ash	<i>Fraxinus uhdei</i>	50/25	40/40	40% poor	poor	E							X			
751				15.8						15.8		Shamel ash	<i>Fraxinus uhdei</i>	55/25	25/25	25% very poor	poor	E	E						X		Circling roots.	
752				18.5						18.5		Shamel ash	<i>Fraxinus uhdei</i>	55/30	55/45	50% fair	moderate	E	E				8		X			

Tree Tag #	To be Removed Per Current Site Plan	Author Remarks (Removal Due to Very Poor Condition or Elevated Risk of Failure)	Project Team Desired to Transplant	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Trunk 4 (in.)	Trunk 5 (in.)	Trunk 6 (in.)	Adjusted Trunk Diameter @ 54" A.G. (112-131448)	"Protected Tree" per City of Cupertino (Minimum 10" dbh, 20' multi-trunk stems, various specified native and non-native species)	Common Name	Scientific Name (Genus, species)	Height and Canopy Spread (ft.)	Health & Structural Rating (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Density (Very Poor, Poor, Mod., Good, Exc.)	Localized Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Topped or Severely Pruned in Past	Barred Root Crown (Note Rooting Roots (GR))	Stem Decay (Note Elevation)	Co-dominant Mainstems with Stem Inclusion(s) (Note Height)	Root Extension Restricted in Planter	Soil Moisture Deficit ("Drought Stress")	WLCA Notes from Spring 2016 Survey	Updated Overall Condition Ratings 12/2017 and 01/2018
753				19.8						19.8		Shamel ash	<i>Fraxinus uhdei</i>	50/30	50/45	49% poor	poor	E	E							X		
754				21.8						21.8		Shamel ash	<i>Fraxinus uhdei</i>	95/25	55/40	45% poor	moderate	E	E		X	GR				X		
755				20.1						20.1		Shamel ash	<i>Fraxinus uhdei</i>	55/25	60/50	55% fair	moderate	E								X		
756				18.1						18.1		Shamel ash	<i>Fraxinus uhdei</i>	60/30	50/45	49% poor	poor to mod	E	E			GR	8			X		
757				16.8						16.8		Shamel ash	<i>Fraxinus uhdei</i>	60/25	40/40	40% poor	poor							8		X		
758		X		19.3						19.3		Shamel ash	<i>Fraxinus uhdei</i>	55/30	25/25	25% very poor	very poor	E	E							X		
759				18.2						18.2		Shamel ash	<i>Fraxinus uhdei</i>	60/30	35/35	35% poor	poor	E	E							X		
760				20.8						20.8		Shamel ash	<i>Fraxinus uhdei</i>	60/35	40/30	35% poor	poor	E	E							X		
761				15.4						15.4		Shamel ash	<i>Fraxinus uhdei</i>	50/30	60/35	40% poor	moderate	E	E						8	X		
762				17.1						17.1		Shamel ash	<i>Fraxinus uhdei</i>	50/35	35/35	35% poor						GR				X		
763		X		23.5						23.5		Shamel ash	<i>Fraxinus uhdei</i>	65/35	15/15	15% very poor	very poor	E						9		X		
764		X		13.6						13.6		Shamel ash	<i>Fraxinus uhdei</i>	50/20	10/10	10% very poor	very poor	E								X		
765				16.0						16.0		Shamel ash	<i>Fraxinus uhdei</i>	50/25	30/30	30% poor	poor	E	E							X		