# **ARBORIST REPORT**

March 3, 2021 5559.00

# **PROJECT**

7246 Sharon Dr. San Jose, CA

# **PREPARED FOR**

David J. Powers and Associates

### **PREPARED BY**

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#### INTRODUCTION AND OVERVIEW

HMH was contracted to prepare an arborist report to supplement a proposal for a development project at 7246 Sharon Drive in San Jose. The proposed improvements would involve a General Plan Amendment and PD Rezoning to allow the construction of 10 live/work townhouses. The project site encompasses a parcel totaling approximately .58 acre. The site currently office spaces, onsite parking lot, and landscaped areas. There are commercial sites to the north, south and west of the property, and a residential neighborhood to the east. Our scope of services includes locating, measuring DBH, assessing, and photographing the condition for trees located within the limit of work illustrated on Exhibit A. Disposition and health recommendations are based on current site conditions. Site development/design may affect the preservation suitability.

#### **METHODOLOGY**

Our tree survey work is a deliberate and systematic methodology for cataloging trees on site:

- 1. Identify each tree species.
- 2. Note each tree's location on a site map.
- 3. Measure each trunk circumference at 4.5' above grade per ISA standards.
- 4. Evaluate the health and structure of each tree using the following numerical standard:
  - **5** A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.
  - 4 A tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
  - **3** A tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may that might be mitigated with care.
  - **2** A tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
  - 1 A tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.
  - 0 Tree is dead.

#### **SUMMARY OF FINDINGS**

HMH conducted a tree inventory of 28 trees located within the limit of work outlined in Exhibit A. Six (6) of the trees inventoried are classified as ordinance-sized trees under the City of San Jose Tree Removal permit.

An ordinance-size tree is:

Single Trunk - 38 inches or more in circumference at 4  $\frac{1}{2}$  feet above ground; or Multi-trunk - The combined measurements of each trunk circumference (at 4  $\frac{1}{2}$  feet above ground) add up to 38 inches or more.

Table 1 - Tree Quantity Summary summarizes tree quantities by both species and size. Each species that was inventoried as part of this scope is included. This is a useful tool for analyzing the mixture of trees as part of the project. The size table is useful when calculating mitigation requirements in the case of tree removal as well as aiding in determining tree maturity.

Table 2 - Tree Evaluation Summary lists each tree number, botanical name, common name, DBH, circumference, ordinance trees, health rating, preservation suitability, general notes and observations and recommendations.

See Exhibit A for Existing Tree Locations

See Table 1 for Tree Quantity Summary by species and size.

See Table 2 for Tree Evaluation Summary for sizes, notes and recommendations regarding each

#### **GENERAL OBSERVATIONS AND RECOMMENDATIONS**

**Species:** Callistemon spp.(Bottlebrush)

Quantity: 1

**Observations / Recommendations:** 

There is one Callistemon growing between a shed and fence on the southern boundary of the site. This tree is growing without adequate space, therefore resulting in an unbalanced canopy and structure. This tree will likely cause more problems if allowed to remain. It is recommended to be removed.

**Species:** *Ginkgo biloba* (Ginkgo)

**Quantity: 8** 

**Observations / Recommendations:** 

A row of eight Ginkgo trees exists on the eastern edge of the site. These are mature and establish trees in good condition. Tree number 26 has an ivy infestation. Ginkgo is a deciduous tree in the same family as cone bearing trees such as pines. They are mostly grown for their fall color. These trees will likely need to be removed to make way for the 10 townhouses. If it possible it is suggested that they be preserved because they represent a valuable site feature.

Species: Liquidambar styraciflua (Sweet Gum)

**Quantity: 10** 

**Observations / Recommendations:** 

A small planting of Sweet Gum Trees is located on the front western edge of the site. Most are in good condition; however they are showing signs of overcrowding. These trees normally progress to a large size so there overcrowding will only get worse in the future. Trees that are in a crowded condition will develop poor structure and will be more susceptible to failure. If these trees are to remain it is recommended that every other tree be removed so that the planting can be thinned. Otherwise, all may be removed at once.

Species: Magnolia grandiflora (Southern Magnolia)

Quantity: 1

**Observations / Recommendations:** 

One Magnolia tree is located centrally on site. It is in good shape however may be in a location for site improvements. This tree will likely be removed because of site development. Magnolia trees require moderate water during the dry months. Any tree protection plan should accommodate supplemental water during construction activities.

**Species:** *Pinus canariensis* (Canary Island Pine)

Quantity: 1

**Observations / Recommendations:** 

There is one large Canary Island Pine on the North Eastern corner of the site. It is unclear whether it needs to be removed. The tree is in good condition and a substantial size. There is a minor ivy infestation that needs to be abated. This tree has rather large branches as well that need to be monitored for signs of structural weakness. Structural pruning should be integrated into long term maintenance plans. It is recommended that this tree should be retained since it is such a prominent site feature.

**Species:** *Pinus thunbergii* (Japanese Black Pine)

Quantity: 1

**Observations / Recommendations:** 

One Japanese Black Pine occurs along the building edge on the northern side. The tree is partially pruned and styled as one would see in a Japanese garden. This is meant to control size while providing a natural shape. Trees like these can last for many generations while keeping a moderate size. Of course this is a very maintenance heavy style of pruning, as trees like these require styling and selective pruning throughout the year. It may be beneficial to keep this tree and maintain its styling. However location to existing structures and proposed site improvements may jeopardize the opportunity to save this individual.

**Species**: Podocarpus henkelii (Long-leafed yellowwood)

Quantity: 2

**Observations / Recommendations:** 

Two Podocarpus henkelii are planted along the edges of the existing building. They are growing in a columnar fashion, with some support provided by the adjacent building. These two trees possess are recommended to remove because the have little value and will likely suffer in health once the building is demolished.

**Species:** Podocarpus gracilior (Fern Pine)

Quantity: 1

**Observations / Recommendations:** 

There is one Podocarpus gracilior occurring in the planting area adjacent to the existing building entrance. It is like the two podocarpus henkelii except that it has shorter dark green leaves. The tree has also been shaped into a topiary to maintain a spherical form and small size. The tree will need to be removed to make way for site improvements. There is little inherent value in the tree to the site.

Species: Quercus agrifolia (Coast Live Oak)

Quantity: 2

**Observations / Recommendations:** 

This is one of California's native oaks and the most prolific to occur in the bay area. There were two located on site, possible volunteers, or intentional plantings. They are also training into a topiary form. This type of pruning helps keep the tree to a manageable size but requires frequent maintenance. Coast Live Oak tends to respond well to shaping, usually forming dense clusters of growth. However, a tree that has been shaped into a topiary should not be allowed to grow into a

natural form as the subsequent branching will have very poor structure to it. Routine maintenance and observation are recommended for these trees. These trees will likely not fit into the site improvements and may need to be removed.

**Species:** *Tristaniopsis Laurina* (Water Gum)

Quantity: 1

**Observations / Recommendations:** 

One Water Gum is located on the Eastern edge of the existing building. It is of medium size and maturity for the species. The tree appears to be in a little bit of stress and is leaning from the shade cast by the adjacent building. This tree prefers full sun and does not do well in shaded conditions. This tree will likely be removed as it interferes with desired site improvements.

#### RECOMMENDATIONS FOR TREE PROTECTION DURING CONSTRUCTION

**Site preparation:** All existing trees shall be fenced off 10' beyond the outside the drip line (foliar spread) of the tree. Alternatively, where this is not feasible, fence to the drip line of the tree. Where fencing is not possible, the trunk shall be protected straw waddle and orange snow fencing. The fence should be a minimum of six feet high, made of pig wire with steel stakes or any material superior in quality, such as cyclone fencing. Tree protection zone sign shall be affixed to fencing at appropriate intervals as determined by the arborist on site. If the fence is within the drip line of the trees, the foliar fringe shall be raised to offset the chance of limb breakage from construction equipment encroaching within the drip line. All contractors, subcontractors and other personnel shall be warned that encroachment within the fenced area is forbidden without the consent of the certified arborist on the job. This includes, but is not limited to, storage of lumber and other materials, disposal of paints, solvents or other noxious materials, parked cars, grading equipment or other heavy equipment. Penalties, based on the cost of remedial repairs and the evaluation guide published by the international society of arboriculture, shall be assessed for damages to the trees. See tree preservation detail for additional information, including tree protection zone sign.

**Grading/excavating:** All grading plans that specify grading within the drip line of any tree, or within the distance from the trunk as outlined in the site preparation section above when said distance is outside the drip line, shall first be reviewed by a certified arborist. Provisions for aeration, drainage, pruning, tunneling beneath roots, root pruning or other necessary actions to protect the trees shall be outlined by an arborist. If trenching is necessary within the area as described above, said trenching shall be undertaken by hand labor and dug directly beneath the trunk of the tree. All roots 2 inches or larger shall be tunneled under and other roots shall be cut smoothly to the trunk side of the trench. The trunk side should be draped immediately with two layers of untreated burlap to a depth of 3 feet from the surface. The burlap shall be soaked nightly and left in place until the trench is back filled to the original level. An arborist shall examine the trench prior to back filling to ascertain the number and size of roots cut, so as to suggest the necessary remedial repairs.

Remedial repairs: An arborist shall have the responsibility of observing all ongoing activities that may affect the trees, and prescribing necessary remedial work to ensure the health and stability of the trees. This includes, but is not limited to, all arborist activities brought out in the previous sections. In addition, pruning, as outlined in the "pruning standards" of the western chapter of the International Society of Arboriculture, shall be prescribed as necessary. Fertilizing, aeration, irrigation, pest control and other activities shall be prescribed according to the tree needs, local site requirements, and state agricultural pest control laws. All specifications shall be in writing. For pest control operations, consult the local county agricultural commissioner's office for individuals licensed as pest control advisors or pest control operators.

**Final inspection:** Upon completion of the project, the arborist shall review all work undertaken that may impact the existing trees. Special attention shall be given to cuts and fills, compacting, drainage, pruning and future remedial work. An arborist should submit a final report in writing outlining the ongoing remedial care following the final inspection.

#### MAINTENANCE RECOMMENDATIONS FOR TREES TO REMAIN

Regular maintenance, designed to promote plant health and vigor, ensures longevity of existing trees. Regular inspections and the necessary follow-up care of mulching, fertilizing, and pruning, can detect problems and correct them before they become damaging or fatal.

**Tree Inspection:** Regular inspections of mature trees at least once a year can prevent or reduce the severity of future disease, insect, and environmental problems. During tree inspection, four characteristics of tree vigor should be examined: new leaves or buds, leaf size, twig growth, and absence of crown dieback (gradual death of the upper part of the tree). A reduction in the extension of shoots (new growing parts), such as buds or new leaves, is a fairly reliable cue that the tree's health has recently changed. Growth of the shoots over the past three years may be compared to determine whether there is a reduction in the tree's typical growth pattern. Further signs of poor tree health are trunk decay, crown dieback, or both. These symptoms often indicate problems that began several years before. Loose bark or deformed growths, such as trunk conks (mushrooms), are common signs of stem decay. Any abnormalities found during these inspections, including insect activity and spotted, deformed, discolored, or dead leaves and twigs, should be noted and observed closely.

**Mulching:** Mulch, or decomposed organic material, placed over the root zone of a tree reduces environmental stress by providing a root environment that is cooler and contains more moisture than the surrounding soil. Mulch can also prevent mechanical damage by keeping machines such as lawn mowers and string trimmers away from the tree's base. Furthermore, mulch reduces competition from surrounding weeds and turf. To be most effective, mulch should be placed 2 to 4 inches deep and cover the entire root system, which may be as far as 2 or 3 times the diameter of the branch spread of the tree. If the area and activities happening around the tree do not permit the entire area to be mulched, it is recommended that as much of the area under the drip line of the tree is mulched as possible. When placing mulch, care should be taken not to cover the actual trunk of the tree. This mulch-free area, 1 to 2 inches wide at the base, is sufficient to avoid moist bark conditions and prevent trunk decay. An organic mulch layer 2 to 4 inches deep of loosely packed shredded leaves, pine straw, peat moss, or composted wood chips is adequate. Plastic should not be used as it interferes with the exchange of gases between soil and air, which inhibits root growth. Thicker mulch layers, 5 to 6 inches deep or greater, may also inhibit gas exchange.

Fertilization: Trees require certain nutrients (essential elements) to function and grow. Urban landscape trees may be growing in soils that do not contain sufficient available nutrients for satisfactory growth and development. In certain situations, it may be necessary to fertilize to improve plant vigor. Fertilizing a tree can improve growth; however, if fertilizer is not applied wisely, it may not benefit the tree at all and may even adversely affect the tree. Mature trees making satisfactory growth may not require fertilization. When considering supplemental fertilizer, it is important to consider nutrients deficiencies and how and when to amend the deficiencies. Soil conditions, especially pH and organic matter content, vary greatly, making the proper selection and use of fertilizer a somewhat complex process. To that end, it is recommended that the soil be tested for nutrient content. A soil testing laboratory and can give advice on application rates, timing, and the best blend of fertilizer for each tree and other landscape plants on site. Mature trees have expansive root systems that extend from 2 to 3 times the size of the leaf canopy. A major portion of actively growing roots is located outside the tree's drip line. Understanding the actual size and extent of a tree's root system before applying fertilizer is paramount to determine quantity, type and rate at which to best apply fertilizer. Always follow manufacturer recommendations for use and application.

**Pruning:** Pruning is often desirable or necessary to remove dead, diseased, or insect-infested branches and to improve tree structure, enhance vigor, or maintain safety. Because each cut has the potential to change the growth of (or cause damage to) a tree, no branch should be removed without reason. Removing foliage from a tree has two distinct effects on growth: (1) it reduces photosynthesis and, (2) it may reduce overall growth. Pruning should always be performed sparingly. Caution must be taken not to over-prune as a tree may not be able to gather and process enough sunlight to survive. Pruning mature trees may require special equipment, training, and experience. Arborists are equipped to provide a variety of services to assist in performing the job safely and reducing risk of personal injury and property damage (See also ANSI A300 Part 1 Pruning Standards- https://www.tcia.org).

**Removal:** There are circumstances when removal is necessary. An arborist can help decide whether or not a tree should be removed. Professionally trained arborists have the skills and equipment to safely and efficiently remove trees. Removal is recommended when a tree: (1) is dead, dying, or considered irreparably hazardous; (2) is causing an obstruction or is crowding and causing harm to other trees and the situation is impossible to correct through pruning; (3) is to be replaced by a more suitable specimen, and; (4) should be removed to allow for construction. Pruning or removing trees, especially large trees, can be dangerous work. It should be performed only by those trained and equipped to work safely in trees.

#### **TERMS AND CONDITIONS**

The following terms and conditions apply to all oral and written reports and correspondence pertaining to consultations, inspections and activities of HMH.

- The scope of any report or other correspondence is limited to the trees and conditions specifically mentioned in those reports and correspondence. HMH assumes no liability for the failure of trees or parts of trees, either inspected or otherwise. HMH assumes no responsibility to report on the condition of any tree or landscape feature not specifically requested by the named client.
- 2. No tree described in this report was climbed, unless otherwise stated. HMH does not take responsibility for any defects, which could have only been discovered by climbing. A full root collar inspection, consisting of excavating the soil around the tree to uncover the root collar and major buttress roots was not performed unless otherwise stated. HMH does not take responsibility for any root defects, which could only have been discovered by such an inspection.
- 3. HMH shall not be required to provide further documentation, give testimony, be deposed, or attend court by reason of this appraisal or report unless subsequent contractual arrangements are made, including payment of additional fees for such services as described by HMH or in the schedule of fees or contract.
- 4. HMH guarantees no warrantee, either expressed or implied, as to the suitability of the information contained in the reports for any reason. It is the responsibility of the client to determine applicability to his/her case.
- 5. Any report and the values, observations and recommendations expressed therein represent the professional opinion of HMH, and the fee for services is in no manner contingent upon the reporting of a specified value nor upon any particular finding to be reported.
- 6. Any photographs, diagrams, graphs, sketches or other graphic material included in any report, being intended solely as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys, unless otherwise noted in the report. Any reproductions of graphic material or the work produced by other persons, is intended solely for clarification and ease of reference. Inclusion of said information does not constitute a representation by HMH as to the sufficiency or accuracy of that information.
- 7. 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 all trees.

# Existing Tree Map Exhibit A



# **TABLE 1 - TREE QUANTITY SUMMARY**

Tree Quantity by Species						
Species	Quantity	% of Site				
Callistemon Citrinus	1	4%				
Ginkgo biloba	8	29%				
Liquidambar styraciflua	10	36%				
Magnolia grandiflora	1	4%				
Pinus canariensis	1	4%				
Pinus thunbergii	1	4%				
Podocarpus henkelii	2	7%				
Podocarpus gracilior	1	4%				
Quercus agrifolia	2	7%				
Tristaniopsis laurina	1	4%				
Total Trees	28	100%				

# **TABLE 2 - TREE EVALUATION SUMMARY**

Prepared By: William Sowa ISA Certified Arborist WE-12270A

#### **DBH MEASUREMENT HEIGHT: 54"**

Date of Evaluation: 3/2/2021

# Suitability for Preservation is based on the following

Good - Trees with good health and structural stability that have the potential for longevity at the site.

Moderate - Trees in somewhat declining health and/or exhibits structural defects that cannot be abated with treatment. Trees will require more intense management and will have a shorter lifespan than those in the 'Good' category.

Poor - Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to decline, regardless of treatment.

#### **Health Rating**

- 5 A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.
- 4 A tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
- 3 A tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may that might be mitigated with care.
- 2 A tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.

1	A tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.								
	Tree is dead.								
Abbreviations and Definitions									
CD	Codominant branches								
CDB	Dieback in Crown	Condition where branches in the tree crown die from the tips toward the center.							
CR	Crowded	Tree is bounded closely by one or more of the following: structure, tree, Etc.							
	Decline	Tree shows obvious signs of decline, which may be indicative of the presence of multiple biotic and abiotic disorders.							
DBH	Diameter at Breast Height	Measurement of tree diameter in inches. Measurement height varies by City and is noted above.							
EG	Epicormic Growth	Watersprouting on trunk and main leaders. Typically indicative of tree stress.							
EH	Exposed Heartwood	Exposure of the tree's heartwood is typically seen as an open wound that leaves a tree more susceptible to pathogens, disease or infection.							
Н	Hazardous	A tree that in it's current condition, presents a hazard.							
HD	Headed	Poor pruning practice of cutting back branches. Often practiced under utility lines to limit tree height.							
IB	Included Bark	Structural defect where bark is included between the branch attachment so the wood can't join. Such defect can have a higher probability of failure.							
LC	Low crotch	Multiple central leaders originating below the DBH measurement site.							
LN	Leaning Tree	Tree leaning, see notes for severity.							
ML	Multiple Leaders	More than one upright primary stem							
PT	Phototropism	Tree exhibits phototropic growth habits. Reduced trunk taper, misshapen trunk and canopy growth are examples of this growth habit.							
S	Suckers	Shoot arising from the roots.							
SD	Structural Defects	Naturally or secondary conditions including cavities, poor branch attachments, cracks, or decayed wood in any part of the tree that may contribute to structural failure.							
SE	Severe	Indicates the severity of the following term.							
SL	Slight	Indicates the mildness of the following term.							
SR	Surface Roots	Roots visible at finished grade.							
ST	Stress	Environmental factor inhibiting regular tree growth. Includes drought, salty soils, nitrogen and other nutrient deficiencies in the soil.							
WU	Weak Union	Weak union or fork in tree branching structure.							
	Ordinance Tree	Ordinance-Size Trees.An ordinance-size tree is: Single Trunk - 38 inches or more in circum-ference at 4 ½ feet above ground; or Multi-trunk - The combined measurements of each trunk circumference (at 4 ½ feet above ground) add up to 38 inches or more.							

TREE #	BOTANICAL NAME	COMMON NAME	DBH (INCHES)	CIRCUMF- ERENCE (INCHES)	ORDINANCE TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
1	Liquidambar styraciflua	Sweet Gum	11.0	35	NO	2	Moderate	SD, CDB, CR
2	Liquidambar styraciflua	Sweet Gum	9.0	28	NO	3	Moderate	SD, CR, Split Trunk
3	Liquidambar styraciflua	Sweet Gum	8.0	25	NO	2	Moderate	SD, CR
4	Liquidambar styraciflua	Sweet Gum	7.0	22	NO	2	Moderate	SD, CR, Split Trunk
5	Liquidambar styraciflua	Sweet Gum	6.0	19	NO	2	Moderate	SD, CR
6	Liquidambar styraciflua	Sweet Gum	8.0	25	NO	3	Moderate	CR
7	Liquidambar styraciflua	Sweet Gum	9.0	28	NO	3	Moderate	CR
8	Liquidambar styraciflua	Sweet Gum	9.0	28	NO	3	Moderate	CR
9	Liquidambar styraciflua	Sweet Gum	7.0	22	NO	3	Moderate	CR, SD
10	Liquidambar styraciflua	Sweet Gum	6.0	19	NO	3	Moderate	
11	Podocarpus henkelii	Long-leafed Yellowwood	6.0	19	NO	3	Moderate	Against Building
12	Pinus thunbergii.	Japanese Black Pine	5.0	16	NO	3	Moderate	LN. Against Building
13	Magnolia grandiflora	Southern Magnolia	13.0	41	YES	3	Moderate	
14	Quercus agrifolia	Coast Live Oak	12.0	38	YES	2	Moderate	Topiary
15	Tristaniopsis Laurina	Water Gum	11.0	35	NO	3	Moderate	LN, Against Building
16	Podocarpus henkelii	Long-leafed Yellowwood	13.0	41	YES	3	Moderate	Against Building
17	Podocarpus gracilior	Fern Pine	8.0	25	NO	2	Moderate	Topiary
18	Callistemon spp.	Bottlebrush	9.0	28	NO	2	Moderate	SD
19	Ginkgo biloba	Ginkgo	11.0	35	NO	4	Good	
20	Ginkgo biloba	Ginkgo	8.0	25	NO	3	Good	

TREE #	BOTANICAL NAME	COMMON NAME	DBH (INCHES)	CIRCUMF- ERENCE (INCHES)	ORDINANCE TREE	HEALTH	PRESERVATION SUITABILITY	NOTES
21	Ginkgo biloba	Ginkgo	11.0	35	NO	2	Moderate	SD, LN
22	Ginkgo biloba	Ginkgo	8.0	25	NO	3	Moderate	
23	Ginkgo biloba	Ginkgo	10.0	31	NO	3	Good	
24	Ginkgo biloba	Ginkgo	13.0	41	YES	4	Good	
25	Ginkgo biloba	Ginkgo	11.0	35	NO	4	Good	
26	Ginkgo biloba	Ginkgo	8.0	25	NO	2	Moderate	Ivy infested, LN
27	Pinus canariensis	Canary Island Pine	18.0	57	YES	4	Good	Ivy infested
28	Quercus agrifolia	Coast Live Oak	12.0	38	YES	3	Moderate	Topiary























































