

Example Construction Impact Arborist Report

Prepared for *Client*

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Background

****Client**** contacted me in August of 2020 and asked me to prepare an arborist report for a development project planned for ****project address****. Several existing residential structures will be demolished, and three new structures will be built in their place. The entire property will be cleared before construction.

I visited the subject property at 8am on Monday, September 28, 2020 to collect data for this report.

Project Description

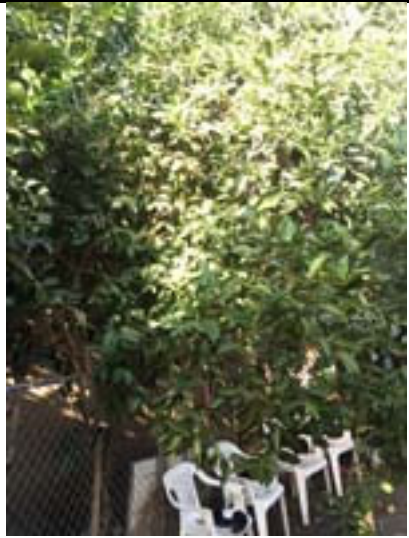

Several existing residential buildings on the property will be demolished. The site will be cleared, and three new residential structures will be built.




Of the 20 trees covered in this report, 3 are growing on neighboring properties. All 17 of the trees on the subject property will be removed. 2 of the trees on the subject property are heritage size and are protected by ordinance. Mitigation trees will be planted to replace the ones removed.


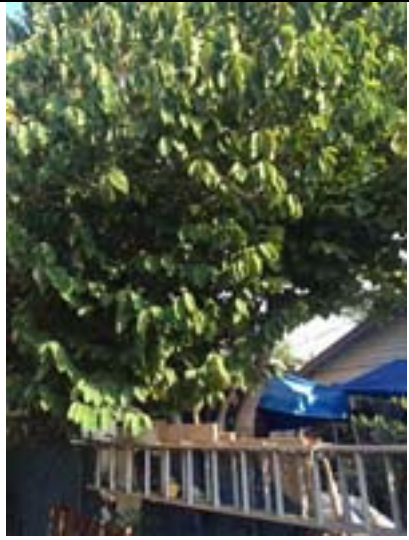
At the time I prepared this report, a decision had not yet been made as to whether a CMU block wall will be built along the eastern property line or if the existing fencing will be retained. If a CMU wall is built, then the roots of three trees growing on the adjacent property to the east (Trees OP16-OP18) may be negatively impacted. Impacts to these trees may be mitigated by retaining the existing property line fencing.



Subject Trees



	<p>Tree 1 <i>Psidium guajava</i> – Guava</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree has a history of past topping, but it is still vigorous. I assigned it a condition rating of 60%. I assigned it a functional limitations rating of 90% because of its messy fruit drop for part of the year.</p>
	<p>Tree 2 <i>Eriobotrya japonica</i> – Loquat</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree has a history of past topping, but it is still vigorous. I assigned it a condition rating of 70%.</p>
	<p>Tree 3 <i>Citrus sinensis</i> – Orange Tree</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree has minor leafminer damage. It is partly rootbound from its former pot. I assigned it a condition rating of 60%.</p>



	<p>Tree 4 <i>Citrus sp.</i> – Citrus</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree is rootbound from its prior container. It was formerly grown in a bucket laying on grade, but it broke through the bucket as it grew. I assigned it a condition rating of 40%.</p>
	<p>Tree 5 <i>Persea americana</i> – Avocado</p> <p>This tree is a protected heritage tree by ordinance because its circumference is larger than 36 inches. It will be removed as part of the proposed lot clearing.</p> <p>This tree has a prevailing lean, but it is otherwise healthy. I assigned it a condition rating of 80%.</p>



	<p>Tree 6 <i>Psidium guajava</i> – Guava</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree is healthy. I assigned it a condition rating of 90%. I assigned it a functional limitations rating of 80% for its messy fruit drop for part of the year in close proximity to the adjacent home.</p>
	<p>Tree 7 <i>Musa sp.</i> – Banana</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree has minor heat scorch damage, but it is still in overall good condition. I assigned it a condition rating of 70%. I assigned it a functional limitations rating of 70% because it is a tropical plant that requires ample water, and it is not well suited for growing in the San Gabriel Valley.</p>
	<p>Tree 8 <i>Persea americana</i> – Avocado</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree is partially suppressed by competition with its neighbors. I assigned it a condition rating of 70%.</p>



	<p>Tree 9 <i>Psidium guajava</i> – Guava</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree has a history of past topping, but it is still vigorous. I assigned it a condition rating of 60%. I assigned it a functional limitations rating of 80% for its messy fruit drop for part of the year in close proximity to the adjacent home.</p>
	<p>Tree 10 <i>Psidium sp.</i> – Guava</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree has a history of past topping, but it is still vigorous. It has a substantial trunk injury on the south side, possibly from a prior branch failure. I assigned it a condition rating of 40%. I assigned it a functional limitations rating of 80% for its messy fruit drop for part of the year in close proximity to the adjacent home.</p>

	<p>Tree 11 <i>Musa sp.</i> – Banana</p> <p>This tree is a protected heritage tree by ordinance because it has a combined trunk circumference of at least 75 inches. It will be removed as part of the proposed lot clearing.</p> <p>This tree has evidence of minor heat scorch, but it is otherwise in good condition. I assigned it a condition rating of 70%. I assigned it a functional limitations rating of 70% because it is a tropical plant that requires ample water, and it is not well suited for growing in the San Gabriel Valley.</p>
	<p>Tree 12 <i>Citrus sp.</i> – Citrus</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree has co-dominant stem defects and minor leafminer damage, but it is overall in good condition. I assigned it a condition rating of 60%.</p>

	<p>Tree 13 <i>Citrus sp.</i> – Citrus</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree has minor leafminer damage, but it is still vigorous. I assigned it a condition rating of 70%.</p>
	<p>Tree 14 <i>Ailanthus altissima</i> – Tree of Heaven</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>Tree of Heaven is known to be a weedy and undesirable species, so I assigned it an external limitations rating of 30%. This tree is otherwise healthy. I assigned it a condition rating of 90%.</p>

	<p>Tree 15 <i>Psidium sp.</i> – Guava</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree has a history of past topping, but it is still vigorous. I assigned it a condition rating of 60%. I assigned it a functional limitations rating of 80% for its messy fruit drop for part of the year in close proximity to the adjacent home.</p>
	<p>Tree OP16 <i>Persea americana</i> – Avocado</p> <p>This tree is too small to be protected by ordinance. It is growing on the neighboring property to the east. It will be pruned for clearance over the subject property.</p> <p>This tree has symptoms of heat and drought stress. I assigned it a condition rating of 40%.</p> <p>If a CMU wall is built along the property line, then this tree's roots may be negatively impacted.</p>

	<p>Tree OP17 <i>Archontophoenix cunninghamiana</i> – King Palm</p> <p>This tree is too small to be protected by ordinance. It is growing on the neighboring property to the east. It is intended to be preserved through construction.</p> <p>This tree is healthy. I assigned it a condition rating of 90%.</p> <p>If a CMU wall is built along the property line, then this tree's roots may be negatively impacted.</p>
	<p>Tree OP18 <i>Archontophoenix cunninghamiana</i> – King Palm</p> <p>This tree is too small to be protected by ordinance. It is growing on the neighboring property to the east. It is intended to be preserved through construction.</p> <p>This tree is partially suppressed by competition with the neighboring loquat tree (Tree 19). I assigned it a condition rating of 70%.</p> <p>If a CMU wall is built along the property line, then this tree's roots may be negatively impacted.</p>

	<p>Tree 19 <i>Eriobotrya japonica</i> – Loquat</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree is healthy. I assigned it a condition rating of 90%.</p>
	<p>Tree 20 <i>Psidium guajava</i> – Guava</p> <p>This tree is too small to be protected by ordinance. It will be removed as part of the proposed lot clearing.</p> <p>This tree is dead. It is covered in vines. I assigned it a condition rating of 0%.</p>

Appraisal Methodology

The approach I took for appraising the subject trees was the cost approach. Because the subject trees are larger than the largest commonly available nursery tree, I deemed it appropriate to use an extrapolation formula to appraise the cost of procuring them. One of the reproduction cost method techniques provided in The Guide to Plant Appraisal 10th edition is the Trunk Formula Technique of appraisal, abbreviated here:

The theory of the Trunk Formula Technique is to scale up the cost of the largest commonly available nursery tree relative to the total cross sectional area of the tree trunk. The unit cost per square inch of nursery stock is calculated for the Largest Commonly Available Nursery Tree (LCANT), and it is multiplied by the cross sectional area of the subject tree being appraised. This is the basic reproduction cost of the tree. It represents the cost to reproduce a defect-free copy of the tree with one of the same size and species.

After calculating the basic cost of the tree, depreciating factors may be introduced. Since hand-selected nursery stock is in theory the best quality, the basic cost must be adjusted downward by a Condition rating to reflect any defects in health, structure, and form. The Condition rating is a subjective rating between 0% and 100% as determined by the appraising arborist. Guidance is given as a framework for general ratings in Table 4.1 of the Guide for Plant Appraisal 10th Edition, Second Printing (CTLA 2019, p. 44).

Functional Limitations reflect the features of the tree/site interaction that restrict or constrain growth or function due to poor placement or size. External Limitations reflect restrictions to the tree involving legal, biological, or environmental conditions external to the property (CTLA 2019, p. 9). Functional Limitations and External Limitations are also subjective ratings ranging between 0% and 100% as determined by the appraising arborist, with similar guidance provided.

The final appraised Trunk Formula Technique Reproduction Cost of the tree is the product of the total cross sectional area, the unit cost of trunk area, and the three depreciating factors: Condition, Functional Limitations, and External Limitations.

Trunk Area

First, the diameter of the subject trunk is measured. The height of the measurement is conventionally made at 4.5 feet above natural grade. If the subject tree has multiple trunks, the diameter of each individual trunk is measured. The cross sectional area (A) is calculated by the formula $A = \pi/4 d^2$. Then the cross sectional area of each trunk is added together to arrive at the total trunk cross sectional area.

Unit Cost

The unit cost of nursery stock is published in the Western Chapter ISA Regional Species Classification Guide, and it varies based on the growth rate of the tree and its trunk size in various box sizes. This unit cost for most trees is expressed in dollars per square inch of trunk cross sectional area.

Palm trees are extrapolated on the basis of brown-trunk height, the distance from the ground up to the lowest living frond. Their unit costs are expressed in dollars per foot of brown trunk. Extrapolation is performed by multiplying the brown trunk height of the subject tree by the unit cost of nursery stock.

The WCISA Regional Guide was most recently published in 2004. One of its weaknesses is it has not been adjusted for inflation and current market pricing. As an alternative to using the published values in the guide, a more detailed analysis of the unit cost could be performed at a greater expense: wholesale nursery pricing catalogs from many growers can be obtained and analyzed for size and price information to determine a more accurate unit cost. Due to budget and time limitations, that additional level of research was not undertaken for this appraisal report.

Banana tree (*Musa sp.*) is not published in the WCISA Regional Guide. It is not commonly grown in Southern California. To calculate its unit cost, I used a single data point from Evergreen Nursery in San Diego. They had a 36" box listed in their catalog, which had a total height of 10 feet and a brown trunk height of 7 feet. I calculated the unit cost by dividing the listed price by the brown trunk height and multiplying by a 2x markup factor to reflect planting costs.

Condition Rating

For purposes of this assignment, I assigned a letter-grade condition rating to each of the trees based on my subjective assessment of each tree's health, structure, and form. From those letter grades, I assigned a percentage Condition rating according to the following table:

Rate	%
A	90%
A-	80%
B+	75%
B	70%
B-	60%
C+	55%
C	50%
C-	40%
D+	35%
D	30%
D-	15%
F	0%

Functional Limitations and External Limitations

Functional Limitations reflect the restriction on tree growth or intended use in the landscape based on the interaction of site and species. External Limitations are the restrictions on tree growth or intended use with respect to attributes outside the control of the property owner. Known fatal pests, drought restrictions, invasive species status, and utility easement conflict are all examples of external limitations.

I applied a functional limitation deduction to the guava trees for their messy fruit drop during part of the year. I also applied a deduction for the banana trees because they are tropical trees that are not suited to growing in the San Gabriel Valley. I applied an external limitations rating to the Tree of Heaven because it is listed as an invasive weed by the California Invasive Plant Council.

Appraised Cost Solution

The basic cost is calculated by multiplying the trunk area by the unit cost (or the brown trunk height by the unit cost for palms). For Trees 7 and 11, I further multiplied by the number of stems because the banana trees are sold as single stem plants in the nursery.

The basic cost is then multiplied by the Condition, Functional Limitations, and External Limitations ratings to arrive at the appraised cost solution.

Other Appraisal Methods

I did not use any other methods of tree appraisal. I did not research the cost to procure a direct replacement of any tree. I did not calculate the present value of the income generated by the benefits provided by the tree. I did not calculate the difference in market value of the subject property before and after the loss.

Matrix of All Trees On Site

Tree Tag	Latin Name	Common Name	Total Circumference	Total DBH	# Trunks	Height	Canopy Diameter	Condition	Treatment	Rate	Protect	Remove
1	5968 <i>Psidium guajava</i>	Guava	23.6"	7.5"	1	15'	18'	past topping, still vigorous	remove	B-	No	Yes
2	5969 <i>Eriobotrya japonica</i>	Loquat	34.6"	11.0"	1	22'	18'	past topping, still vigorous	remove	B	No	Yes
3	5970 <i>Citrus sinensis</i>	Orange	15.7"	5.0"	1	20'	15'	minor leafminer damage, partly rootbound	remove	B-	No	Yes
4	5971 <i>Citrus sp.</i>	Citrus	25.1"	8.0"	3	18'	12'	rootbound, outgrew pot	remove	C-	No	Yes
5	5972 <i>Persea americana</i>	Avocado	36.9"	11.8"	1	27'	27'	healthy, leaning	remove	A-	Yes, Circ>36"	Yes
6	5973 <i>Psidium guajava</i>	Guava	12.6"	4.0"	1	12'	12'	healthy	remove	A	No	Yes
7	5974 <i>Musa sp.</i>	Banana	58.1"	18.5"	3	10'	10'	minor heat scorch	remove	B	No	Yes
8	5975 <i>Persea americana</i>	Avocado	34.6"	11.0"	6	15'	12'	partially suppressed by competition	remove	B	No	Yes
9	5976 <i>Psidium guajava</i>	Guava	29.8"	9.5"	1	24'	18'	past topping, still vigorous	remove	B-	No	Yes
10	5977 <i>Psidium sp.</i>	Guava	59.7"	19.0"	3	24'	21'	past topping, still vigorous; trunk injury	remove	C-	No	Yes
11	5978 <i>Musa sp.</i>	Banana	97.4"	31.0"	6	24'	21'	minor heat scorch	remove	B	Yes, Combined Circ > 75"	Yes
12	5979 <i>Citrus sp.</i>	Citrus	25.1"	8.0"	2	18'	15'	co-dom stems, minor leafminer damage	remove	B-	No	Yes
13	5980 <i>Citrus sp.</i>	Citrus	39.3"	12.5"	2	21'	21'	minor leafminer damage, still vigorous	remove	B	No	Yes
14	5981 <i>Allanthus altissima</i>	Tree of Heaven	36.1"	11.5"	3	27'	15'	weedy species	remove	A	No	Yes
15	5982 <i>Psidium sp.</i>	Guava	28.3"	9.0"	1	20'	22'	past topping, still vigorous	remove	B-	No	Yes
OP16	no tag <i>Persea americana</i>	Avocado	25.1"	8.0"	2	15'	12'	heat/drought stress	prune	C-	No	No
OP17	no tag <i>Archontophoenix cunninghamiana</i>	King Palm	18.8"	6.0"	1	10' B/T	12'	healthy	none	A	No	No
OP18	no tag <i>Archontophoenix cunninghamiana</i>	King Palm	18.8"	6.0"	1	15' B/T	12'	suppressed by competition	none	B	No	No
19	5983 <i>Eriobotrya japonica</i>	Loquat	47.1"	15.0"	2	24'	21'	healthy	remove	A	No	Yes
20	5984 <i>Psidium guajava</i>	Guava	9.4"	3.0"	1	8'	8'	dead, covered in vines	remove	F	No	Yes

GPS Coordinates

Tree	Tag	Latin Name	Common Name	GPS Lat	GPS Long
1	5968	<i>Psidium guajava</i>	Guava	34.067451	-118.056732
2	5969	<i>Eriobotrya japonica</i>	Loquat	34.067487	-118.056806
3	5970	<i>Citrus sinensis</i>	Orange	34.067563	-118.056655
4	5971	<i>Citrus sp.</i>	Citrus	34.067574	-118.056676
5	5972	<i>Persea americana</i>	Avocado	34.067595	-118.056702
6	5973	<i>Psidium guajava</i>	Guava	34.067596	-118.056763
7	5974	<i>Musa sp.</i>	Banana	34.067611	-118.056755
8	5975	<i>Persea americana</i>	Avocado	34.067625	-118.056745
9	5976	<i>Psidium guajava</i>	Guava	34.067602	-118.056604
10	5977	<i>Psidium sp.</i>	Guava	34.067589	-118.056581
11	5978	<i>Musa sp.</i>	Banana	34.067597	-118.056518
12	5979	<i>Citrus sp.</i>	Citrus	34.06761	-118.056503
13	5980	<i>Citrus sp.</i>	Citrus	34.067781	-118.056586
14	5981	<i>Ailanthus altissima</i>	Tree of Heaven	34.067743	-118.056502
15	5982	<i>Psidium sp.</i>	Guava	34.06776	-118.056486
OP16	no tag	<i>Persea americana</i>	Avocado	34.067711	-118.056388
OP17	no tag	<i>Archontophoenix cunninghamiana</i>	King Palm	34.067725	-118.056369
OP18	no tag	<i>Archontophoenix cunninghamiana</i>	King Palm	34.06776	-118.056356
19	5983	<i>Eriobotrya japonica</i>	Loquat	34.067764	-118.056365
20	5984	<i>Psidium guajava</i>	Guava	34.067835	-118.056313

Tree Appraisal Calculations

Tree	Latin Name	Total DBH	# of Trunks	Height	Trunk Area	Unit Cost	Basic Cost	Rate	Condition	Functional Limitations	External Limitations	Appraised Cost	Notes
1	<i>Psidium guajava</i>	7.5"	1	15'	44.18 in ²	\$118.00/in ²	\$ 5,213.08	B-	60%	90%	100%	\$2,800.00	Not Protected by Ordinance
2	<i>Eriobotrya japonica</i>	11.0"	1	22'	95.03 in ²	\$84.00/in ²	\$ 7,982.79	B	70%	100%	100%	\$5,600.00	Not Protected by Ordinance
3	<i>Citrus sinensis</i>	5.0"	1	20'	19.63 in ²	\$84.00/in ²	\$ 1,649.34	B-	60%	100%	100%	\$1,000.00	Not Protected by Ordinance
4	<i>Citrus sp.</i>	8.0"	3	18'	18.85 in ²	\$84.00/in ²	\$ 1,583.36	C-	40%	100%	100%	\$600.00	Not Protected by Ordinance
5	<i>Persea americana</i>	11.5"	1	27'	103.87 in ²	\$84.00/in ²	\$ 8,724.99	A-	80%	100%	100%	\$7,000.00	Heritage Tree >36" circ
6	<i>Psidium guajava</i>	4.0"	1	12'	12.57 in ²	\$118.00/in ²	\$ 1,482.83	A	90%	80%	100%	\$1,100.00	Not Protected by Ordinance
7	<i>Musa sp.</i>	18.5"	3	6' B/T	92.09 in ²	\$142.86/ft	\$ 2,571.43	B	70%	70%	100%	\$1,300.00	Not Protected by Ordinance
8	<i>Persea americana</i>	11.0"	6	15'	19.63 in ²	\$84.00/in ²	\$ 1,649.34	B	70%	100%	100%	\$1,200.00	Not Protected by Ordinance
9	<i>Psidium guajava</i>	9.5"	1	24'	70.88 in ²	\$118.00/in ²	\$ 8,364.10	B-	60%	80%	100%	\$4,000.00	Not Protected by Ordinance
10	<i>Psidium sp.</i>	19.0"	3	24'	104.46 in ²	\$118.00/in ²	\$12,326.04	C-	40%	80%	100%	\$4,000.00	Not Protected by Ordinance
11	<i>Musa sp.</i>	31.0"	6	15' B/T	135.48 in ²	\$142.86/ft	\$12,857.14	B	70%	70%	100%	\$6,000.00	Heritage Multi >75" circ
12	<i>Citrus sp.</i>	8.0"	2	18'	25.13 in ²	\$84.00/in ²	\$ 2,111.15	B-	60%	100%	100%	\$1,300.00	Not Protected by Ordinance
13	<i>Citrus sp.</i>	12.5"	2	21'	73.24 in ²	\$84.00/in ²	\$ 6,152.02	B	70%	100%	100%	\$4,300.00	Not Protected by Ordinance
14	<i>Ailanthus altissima</i>	11.5"	3	27'	37.11 in ²	\$45.00/in ²	\$ 1,669.95	A	90%	100%	30%	\$500.00	Not Protected by Ordinance
15	<i>Psidium sp.</i>	9.0"	1	20'	63.62 in ²	\$118.00/in ²	\$ 7,506.84	B-	60%	80%	100%	\$3,600.00	Not Protected by Ordinance
OP16	<i>Persea americana</i>	8.0"	2	15'	25.13 in ²	\$84.00/in ²	\$ 2,111.15	C-	40%	100%	100%	\$800.00	Not Protected by Ordinance
OP17	<i>Archontophoenix cunninghamiana</i>	6.0"	1	10' B/T	28.27 in ²	\$200.00/ft	\$ 2,000.00	A	90%	100%	100%	\$1,800.00	Not Protected by Ordinance
OP18	<i>Archontophoenix cunninghamiana</i>	6.0"	1	15' B/T	28.27 in ²	\$200.00/ft	\$ 3,000.00	B	70%	100%	100%	\$2,100.00	Not Protected by Ordinance
19	<i>Eriobotrya japonica</i>	15.0"	2	24'	94.64 in ²	\$84.00/in ²	\$ 7,949.80	A	90%	100%	100%	\$7,200.00	Not Protected by Ordinance
20	<i>Psidium guajava</i>	3.0"	1	8'	7.07 in ²	\$118.00/in ²	\$ 834.09	F	0%	100%	100%	\$0.00	Not Protected by Ordinance
TOTAL												\$56,200.00	
TOTAL PROTECTED												\$13,000.00	

Recommendations and Construction Impact Guidelines

Pre-Construction

These recommendations should be implemented prior to the start of construction.

- Pruning:
 - Obtain permission from the neighboring property owner to the east before pruning Tree OP16.
 - Prune the branches of Tree OP16 that encroach over the property and interfere with the proposed construction project, removing the minimum amount of foliage necessary to achieve clearance.
 - Hire a crew directly supervised by a certified arborist on site to ensure the pruning cuts are made to branch unions and do not unnecessarily remove foliage.
 - As the project progresses, only prune when deemed necessary by the project arborist; as much live foliage as possible should be preserved through the construction process to give the trees the best opportunity to thrive after construction is complete.
- No tree protection fencing is recommended for this project because the entire site will be cleared. If the existing fencing along the eastern property line is retained, it will serve as a sufficient barrier.
- After obtaining permits, remove the trees approved for removal by the urban planner.

During Construction

This is the stage where mechanical injury is the most likely to occur. By following these recommendations, the likelihood of accidental damage will be reduced:

- Inform all construction personnel of the intention to preserve the trees. Many times damage occurs because workers are not aware of the importance of preserving the trees on site. This includes contractors and their respective subcontractors as well.
- If any changes are made to the plans resulting in any excavation or equipment access within the dripline of any protected tree, the project arborist should be informed. Additional protection measures may need to be discussed.
- Throughout the construction period, a certified arborist should make periodic site visits to ensure the tree protection plan is being followed.

- If any tree is injured during construction, the project arborist should be informed within 24 hours so it may be evaluated and treated as soon as possible.
- All excavation within the upper 36 inches of soil within 10 feet of Trees OP16-OP18 should be performed with hand tools only and should be directly supervised by the project arborist. If roots larger than 1 inch are encountered, the project arborist should evaluate whether they may be preserved. If the roots must be severed, the project arborist should cleanly sever them with a sharp cutting tool.
- If during any part of the construction phase there is a significant amount of particulates in the air (from cutting materials or any other activity), a shop vacuum or equivalent should be used during the cutting or other activity to reduce the amount of particulates that are deposited on the foliage. If despite a good faith effort to reduce particulates, a layer is still deposited on the foliage, wash it off with a jet of water at the end of each construction day where particulates are deposited.

Post-Construction Care

Trees OP16-OP18 may be monitored by a certified arborist for development of disease, decay, or other symptoms of stress due to construction activity. Deadwood may be removed as it appears, and as much live wood as possible should be retained, provided that it doesn't come into conflict with the infrastructure.

Mitigation Trees

2 heritage trees will be removed as part of the proposed construction project. The City of **** requires replacement trees be planted on a ratio of 2:1. 4 replacement trees will need to be planted as part of the mitigation plan on the subject property. Replacement trees will be 36" box size and will be planted on the subject property.

A map of replacement tree locations is not included in this report because the tree locations have not yet been decided as of the writing of this report.

Limitations

My observations are based on a strictly visual inspection of the property, and some hidden or buried symptoms and signs may not have been observed. I did not conduct excavation, coring, or climbing inspection to make observations. My analysis is only based on the observations I gathered at the time of inspection. I do not guarantee the safety of the subject trees. There is no warranty or guarantee, expressed or implied, that problems or deficiencies may not arise in the future.

Arborists are tree specialists who use their knowledge, education, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living 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 structural failure of a tree. Trees are living organisms that fail in ways not fully understood. Conditions are often hidden within trees and below ground. Arborists 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, surveyed landmarks, 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 all trees.

Works Cited

Council of Tree and Landscape Appraisers. Guide for Plant Appraisal, 10th Edition, Second Printing. ©2019 CTLA.

Western Chapter of the International Society of Arboriculture. A Regional Supplement to the CTLA Guide for Plant Appraisal. ©2004 by WC-ISA

Site Photos



Figure 1: Tree 1



Figure 2: Tree 2



Figure 3: Tree 3



Figure 4: Tree 4



Figure 5: Tree 5



Figure 6: Looking southwest at Tree 5



Figure 7: Tree 6



Figure 8: Tree 7



Figure 9: Tree 8



Figure 10: Tree 9



Figure 11: Tree 10



Figure 12: Tree 11



Figure 13: Tree 12



Figure 14: Tree 13



Figure 15: Tree 14



Figure 16: Tree 15



Figure 17: Tree OP16



Figure 18: Tree OP17



Figure 19: Tree OP18



Figure 20: Tree 19



Figure 21: Tree 20



Figure 22: Looking north at the subject property. Trees 1 and 2 can be seen in the foreground near the street.