

Appendix B

Tree Inventory and Evaluation Report

Tree Inventory & Evaluation

For: SE Corner of Sunset Blvd. & Vine Street

Prepared for: **Mr. Michael Schrock**
Urban Arena
3195 Red Hill Avenue, Loft F
Costa Mesa CA 92626

Prepared by: **Arborgate Consulting, Inc.**
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Date: **November 30, 2020**

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Summary

Urban Arena landscape architects are involved in a beautification and redesign of the southeast corner of Sunset and Vine, in Los Angeles. Michael Schrock requested that I inventory and evaluate all street trees and all others of significant size inside the project area. He also requested that I determine their health and condition, and provide professional opinions regarding their future care and report as appropriate.

The existing street trees are in various states of health from excellent to fair. The street trees in this inventory and evaluation includes 5 Mexican fan palms, a Brazil pepper, two Brisbane box, and two Jacarandas. Several are *relatively* newly planted and assumed to be approved City street trees. Two of the Mexican fan palms, the two Brisbane box, and the two jacarandas appear to be newly planted. All five Mexican fan palms are along Sunset. The jacarandas are planted along Vine. The two Brisbane box are on Leland. Details of the soil conditions, maintenance history, and original planting details were unavailable.

Three other trees are listed herein due to being over 8-inch caliper, two more Mexican fan palms and an octopus tree. The Mexican fan palms are in the middle of the site behind 6263 Leland. The octopus' tree is with the dumpsters behind 6255.

The amount of site work planned is unknown. The three trees on site may need to be removed. They are not protected species, but they are considered significant. There is no plan to remove any street trees, and if any work occurs near them, they will be protected.

Introduction

Assignment

Arborgate Consulting was asked to provide an arboricultural evaluation of approximately 10 existing street trees' and 3 site trees' health and condition, professional opinions and report as appropriate for the City of Los Angeles Urban Forestry division. The street trees on Sunset, Vine and Leland. Each tree was measured, photographed, and evaluated for health and structure. Recommendations are included to improve both health and structure.

Background

This site has a large modern building at the corner, the Sunset & Vine Tower Apartments, the WOSH Sunset & Vine Tower, and a low-rise Chipotle Mexican Grill along the edge along Vine. Along Sunset there are several low-rise buildings including TenderGreens restaurant, the Fabiolus Cucina restaurant, Bowery, Vino Bistro wine bar, Morgan Camera, and Pete's Flowers, the latter two appear vacant. The camera store closed several years ago. The Bowery closed its doors in March 2020 due to the global pandemic. On the south side, along Leland Way, is a parking lot for Chipotle and TenderGreens, the Off Vine restaurant, more parking and a Psychic reader and advisor, that appears closed.

Report

General Findings

The numbering of the trees runs consecutively from southeast corner behind the psychic reader and advisor, around the south edge and parking lots, and back northward along the east side of Vine Street to the southeast corner at Sunset Boulevard eastward to Pete's Flowers, at 6247 Sunset. All the street trees on Sunset and Vine and the two Brisbane box, *Lophostemon confertus*, on Leland are in sidewalk cutouts. One in front of the Off Vine restaurant may or may not be considered a street tree. It is a multi-trunked Brazil pepper, *Schinus terebinthifolius*, covered by vines from the restaurant's landscape. One of the trunks of the Brisbane box have grown out over the tree sidewalk and is being damaged by the edge of the cutout. Eventually the street trees along Vine will also outgrow their cutouts, should they live so long.

The three street trees along the Sunset portion are all Mexican fan palms, *Washingtonia robusta*. The ones in front of the tower apartments are newly planted, and only about 30 feet tall in trunk height. They also have much thinner trunks, possibly having been grown in a crowded nursery field. The two older Mexican fan palms, at 6260 and 6262 are more than twice as tall and old. Those two trunks are damaged by climbing spikes, but healthy.

No root barriers were visible on any trees, but little sidewalk damage was visible anywhere. No empty tree wells were observed.

It was clear that there was little professional efforts to train or maintain the new street trees. The overall impression of the street trees was lack of uniformity, moderate health, except for the palms, and only fair aesthetic value. The strongest architecture for the Brisbane box trees and even the more decurrent trees, e.g. jacaranda, is to have a single, strong well-tapered trunk with smaller side branches.

The street trees are in small tree wells totally surrounded by paving. The heavily compacted soil under the paving limits root growth to the area inside of the tree wells. This accounts for the reduced health of the trees, but not the palms. The new, smaller trees are not limited by this condition yet. Both of the Brisbane box are leaning significantly. The soil in the tree wells of the jacarandas was covered with artificial turf, which would limit aeration of the soil

Plans for the site are not complete. However, it is anticipated that site trees will be removed and street trees can be retained, if desired.

Matrix of Findings

Map#	Species	Common name	Size	Ht	Wd	Health	Structure	Location	Comments
1	Schefflera actinophylla	Octopus tree	15	30	18	C	C	6255 back	Circ cod conc damage mDb
2	Washingtonia robusta	Mexican fan palm	24	70	13	B	A	6255 back	Cod top noRF Hd DL epi
3	Washingtonia robusta	Mexican fan palm	24	70	13	A	A	6255 back	Tinj noRF Hd epi
4	Schinus terebinthifolius	Brazil pepper	3+3+3+2+2	18	15	B	C-	6263 front	Multi-T, bougainvilla covered
5	Lophostemon confertus	Brisbane box	7.8	24	15	C	C-	1460 Vine	Xing leaning RCinj
6	Lophostemon confertus	Brisbane box	6.7	21	14	C	C	1460 Vine	Leans noRF
7	Jacaranda mimosifolia	Jacaranda	3.2	12	9	B	C	1460 Vine	CrS
8	Jacaranda mimosifolia	Jacaranda	2.5	13	8	C	C-	1480 Vine	Tinj cod inc Lt, Astroturf gc
9	Washingtonia robusta	Mexican fan palm	14	30'th	8	C	B	6290 Sunset	Skinny, T-surface damage
10	Washingtonia robusta	Mexican fan palm	14	30'th	8	C	B	6290 Sunset	Skinny, T-surface damage
11	Washingtonia robusta	Mexican fan palm	14	30'th	8	B	B	6290 Sunset	Skinny
12	Washingtonia robusta	Mexican fan palm	17	80'th	10	A	B	6260 Sunset	Gaffed
13	Washingtonia robusta	Mexican fan palm	24	70'th	10	A	B	6260 Sunset	Gaffed

Trees #5 to 13 are street trees. Tree #4 may be a street tree.

“Location” means relative to adjoining buildings.

Abbreviations

1s = one-sided
 1sRF = one-sided root flare
 Circ = circling roots
 Cod = codominant
 CrS = crowded scaffold limbs
 Db = dieback
 DBH = diameter at breast height (4.5')
 Dk = decay
 DL = dogleg

DKB = decayed base
 Epi = epicormic shoots
 Gird
 Hd = headed
 NoRF = no root flare (deep?)
 RCinj = root crown injury
 Sp = sparse
 S=south
 Xing = crossing branches

Analysis

If a more uniform appearance of the street trees is necessary, removal and replacement of most of the existing trees will be necessary. None of the street trees are cloned, so some variation should be expected for trees that are grown from seed. There are only two representatives of each tree species – two jacarandas on Vine and two Brisbane box on Leland. However, there are five Mexican fan palms on Sunset. The variation in the palms is mostly related to the year they were planted. Regardless, palms as large as the older ones could not be delivered, and would not have as much remaining life span. The only way to get uniformity would be to take out older ones and replace them with ones the same size as the newer ones.

Any future planting of Mexican fan palms should have better quality control. The newer ones on Sunset will always have thinner damaged trunks. The trunk damage further up their trunks may be due to lack of necessary protection when they were delivered or how they were lifted. Lifting by a cable or chain will damage the trunk, and palm trunks do not heal.

The leaning of the two Brisbane box, though partly caused by wind, could have been prevented or reduced by better staking. It is too late to straighten them now. This is a species that can get quite large and will outgrow the small sidewalk cutouts. Another species that used to have the same generic name (*Tristania*) now called *Tristaniopsis laurina*, would have been a much better choice and lasted much longer.

It is hard to find well trained jacarandas in the nurseries. Most are codominant to begin with. Early training, starting with subordinating the least vertical trunk(s) can help produce better street trees, with higher canopies and better clearance. Trees #7 has four equal sized primary limbs. It is not so old that it can't be trained this way, as could #8. Tree #8 has a moderate size trunk injury and has been lion-tailed. It might be better at this young age to just replace it.

An article was published about 20 years ago in American Forests magazine that compiled various longevity studies for street trees around the country. They found that the average life span of urban street trees in 4-5 square cutouts was about 7 years nationally. The main reason being root space and deicing salts. However, in mild climates like Los Angeles and Miami, the average was about 17 years. Some arborists and lay people believe pruning will balance the lack of root space, however roots continue to grow and need continually more space. Stunting by pruning requires a delicate balance and good timing, not always found with low-bid tree services. Planting smaller species and providing more root space is the best way to get longer lived street trees.

There is no accurate way to analyze soil chemistry other than having agronomic tests. Lately I have seen increasing toxic levels of metals in street tree soils. The main metals that can become toxic are zinc, copper and manganese. They can add up so that moderate to high levels of all three can become toxic. I have even found high levels on roof gardens with new import

soil. There are many ways metals get into the soil. Tire dust contains zinc. Welding for a steel frame building and older paint residue can cause problems. Constant use of “balanced” fertilizers, e.g. Miracle Grow, that contain small amounts of trace elements can build up to toxic levels.

In recent years several approaches to extending the longevity of street trees have been tried. The books *Up by Roots*, by James Urban, and *Reducing Infrastructure Damage by Tree Roots*, by Larry Costello and Katherine Jones, discuss these methods. The most direct way to lengthen the lifespan of a street tree is to enlarge the root zone beneath adjacent hardscape. Structural soil, aka gap-graded soil or Cornell Mix, is a mix of coarse gravel and soil engineered so that the gravel provides the bearing load for paving above, but without compacting the soil in the gaps between the gravel. This method is expensive and can fail for various reasons, such as sorting during handling and placement of the soil. It is also somewhat inefficient in that roots cannot grow into the pieces of gravel themselves.

Another approach is called Silva Cells. This method uses a plastic support system for the paving above, but which protects the soil below from compaction. Due to engineering costs, this is the most expensive method.

Another method described in *Up By Roots* is simply using trenched channels that run under the paving connecting the tree wells, while the paving is thickened and or reinforced more to span the trenches. Amended soil is placed in the trenches, but only lightly compacted. The trenches can be lined with BioBarrier fabric to reduce the risk of roots lifting the paving. The fabric can also be laid around the tree wells or even horizontally under the paving to further reduce the risk to the paving.

Using plastic root barriers around the edge of tree wells limits the roots to the tree well, and that reduces longevity. One concern is that if the barrier settles or soil is placed over the top edge, roots will be able to grow over the root barriers, and eventually cause pavement damage. This is the most common reason for root barriers to not succeed in containing and directing the roots downward. Roots that get to the bottom of the root barrier can come up again and still damage the paving.

Recommendations

Recommendations Matrix

Map#	Species	Common name	Size	Ht	Wd	Health	Structure	Location	Recommendations
1	Schefflera actinophylla	Octopus tree	15	30	18	C	C	6255 back	Remove
2	Washingtonia robusta	Mexican fan palm	24	70	13	B	A	6255 back	Remove
3	Washingtonia robusta	Mexican fan palm	24	70	13	A	A	6255 back	Remove
4	Schinus terebinthifolius	Brazil pepper	3+3+3+2+2	18	15	B	C-	6263 front	Remove
5	Lophostemon confertus	Brisbane box	7.8	24	15	C	C-	1460 <i>Vine</i>	Replace
6	Lophostemon confertus	Brisbane box	6.7	21	14	C	C	1460 <i>Vine</i>	Replace
7	Jacaranda mimosifolia	Jacaranda	3.2	12	9	B	C	1460 <i>Vine</i>	Replace
8	Jacaranda mimosifolia	Jacaranda	2.5	13	8	C	C-	1480 <i>Vine</i>	Replace
9	Washingtonia robusta	Mexican fan palm	14	30'th	8	C	B	6290 Sunset	Protect in place
10	Washingtonia robusta	Mexican fan palm	14	30'th	8	C	B	6290 Sunset	Protect in place
11	Washingtonia robusta	Mexican fan palm	14	30'th	8	B	B	6290 Sunset	Protect in place
12	Washingtonia robusta	Mexican fan palm	17	80'th	10	A	B	6260 Sunset	Protect in place
13	Washingtonia robusta	Mexican fan palm	24	70'th	10	A	B	6260 Sunset	Protect in place

Pruning Recommendations

All new trees should be inspected at the nursery, and if they need pruning, reject them before they are delivered.

After establishment of new trees, at the end of 2021, follow International Society of Arboriculture Best Management Practices, Part 1 Pruning and ANSI A300, part 1 pruning standards when they are pruned.

No heading, flush cuts, topping or lion-tailing shall be allowed.

Do not remove more than 25% of the foliage or fine branches.

Only prune palms and subtropical trees, like the jacaranda in early summer. All pruning must be supervised by at least a certified arborist with experience in early training of trees. Late spring is the best time to prune the Brisbane box.

Appendix

A. Bibliography

B. Resume

C. Verification of Credentials

D. Photographic Documentation

E. Glossary

A. Bibliography

1. American Association of Nurserymen, ANSI Z60, 1990. American Standard for Nursery Stock. American Association of Nurserymen
2. Harris, R. W., and Clark, J. R., and Matheny, N. P. 1999. *Arboriculture - Integrated Management of Landscape Trees, Shrubs, And Vines*, 3rd Edition. Prentice Hall 684
3. Gilman, Edward F., *An Illustrated Guide to Pruning*; Delmar, 2002
4. American National Standards Institute, A300, part 1 Pruning. Tree Care Industry Association, 136 Harvey Rd, Ste B101, Londonderry, NH 03053
5. Best Management Practices – Pruning, International Society of Arboriculture, P.O. Box 3129, Champaign IL 61826-3129
6. Whitcomb, Carl E. Establishment and Maintenance of Landscape Plants, 1987, Lacebark Inc., Stillwater, Ok.

B. Resume: Greg Applegate, RCA #365

**PROFESSIONAL
REGISTRATIONS:**

American Society of Consulting Arborists #365
International Society of Arboriculture, Certified Arborist Number WE-0180a
American Society of Consulting Arborists – Tree & Plant Appraisal Qualified
International Society of Arboriculture, Tree Risk Assessment Qualified

EXPERIENCE:

Mr. Applegate is CEO of Arborgate Consulting, Inc. and principal consulting arborist. He has been in the horticulture field since 1963, providing professional arboricultural consulting since 1984 within both private and public sectors. His expertise includes appraisal, tree preservation, diagnosis of growth problems, construction impact mitigation, expert witness work, tree risk assessment, pruning supervision and specifications, species selection and construction monitoring.

Mr. Applegate has consulted for insurance companies, campuses, developers, theme parks, homeowners, homeowners' associations, landscape architects and contractors, property managers, attorneys and government.

Notable projects on which he has consulted are: Disneyland, Disneyland Hotel, DisneySeas-Tokyo, Disney's Wild Animal Kingdom, the New Tomorrowland, Disney's California Adventure, Disney Hong Kong project, Knott's Berry Farm, J. Paul Getty Museums, Tustin Ranch, Newport Coast, Crystal Court, Newport Fashion Island Palms, Bixby Ranch Country Club, Playa Vista, Laguna Canyon Road and Myford Road for The Irvine Company, Beverly Hilton Hotel, MWD-California Lakes, Paseo Westpark Palms, Loyola-Marymount campus, Cal Tech, Cal State Long Beach, Pierce College, The Irvine Concourse, UCI, USC, UCLA, LA City College, LA Trade Tech, Riverside City College, Crafton Hills College, MTA projects, and the State of California review of the Landscape Architecture License exam (re: plant materials)

EDUCATION:

Bachelor of Science in Landscape Architecture, California State Polytechnic University, Pomona 1973
Arboricultural Consulting Academy (by ASCA) Arbor-Day Farm, Kansas City 1995
Continuing Education Courses in Arboriculture, required to maintain Certified Arborist status and for ASCA membership

**PROFESSIONAL
AFFILIATIONS:**

American Society of Landscape Architects (ASLA), Full Member
American Society of Consulting Arborists (ASCA), Full Member
International Society of Arboriculture (ISA), Regular Member
California Tree Failure Report Program, UC Davis, Participant
Street Tree Seminar (STS), Member
California Oak Foundation, Member

**COMMUNITY
AFFILIATIONS:**

ASCA, Industry definitions committee and A3G committee	2009-2012
Landscape Architecture License Exam, Reviewer, Cal Poly Pomona	(1986-90)
American Institute of Landscape Architects (L.A.) Board of Directors	(1980-82)
California Landscape Architect Student Scholarship Fund - Chairman	(1985)
International Society of Arboriculture - Examiner-tree worker certification	(1990)
Guest lecturer at UCLA, UCI, Cal Poly, Saddleback College, & Palomar Junior College	
ASCA web site, west coast tree question responder	(2007 – 2015)

C. Verification of Current Registration and Certifications



The International Society of Arboriculture

Hereby Announces That

Gregory W. Applegate

Has Earned the Credential

ISA Certified Arborist ®

By successfully meeting ISA Certified Arborist certification requirements through demonstrated attainment of relevant competencies as supported by the ISA Credentialing Council


Caitlyn Pollihan
CEO & Executive Director

28 July 1997

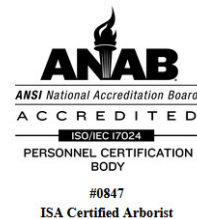
30 June 2021

WE-0180A

Issue Date

Expiration Date

Certification Number



*The American Society
of
Consulting Arborists*

in recognition of fulfillment of the requirements for

Registered Consulting Arborist® status

confers upon

Gregory W. Applegate, RCA #365

Registered Membership



Dr. James R. Clark, RCA #357
President

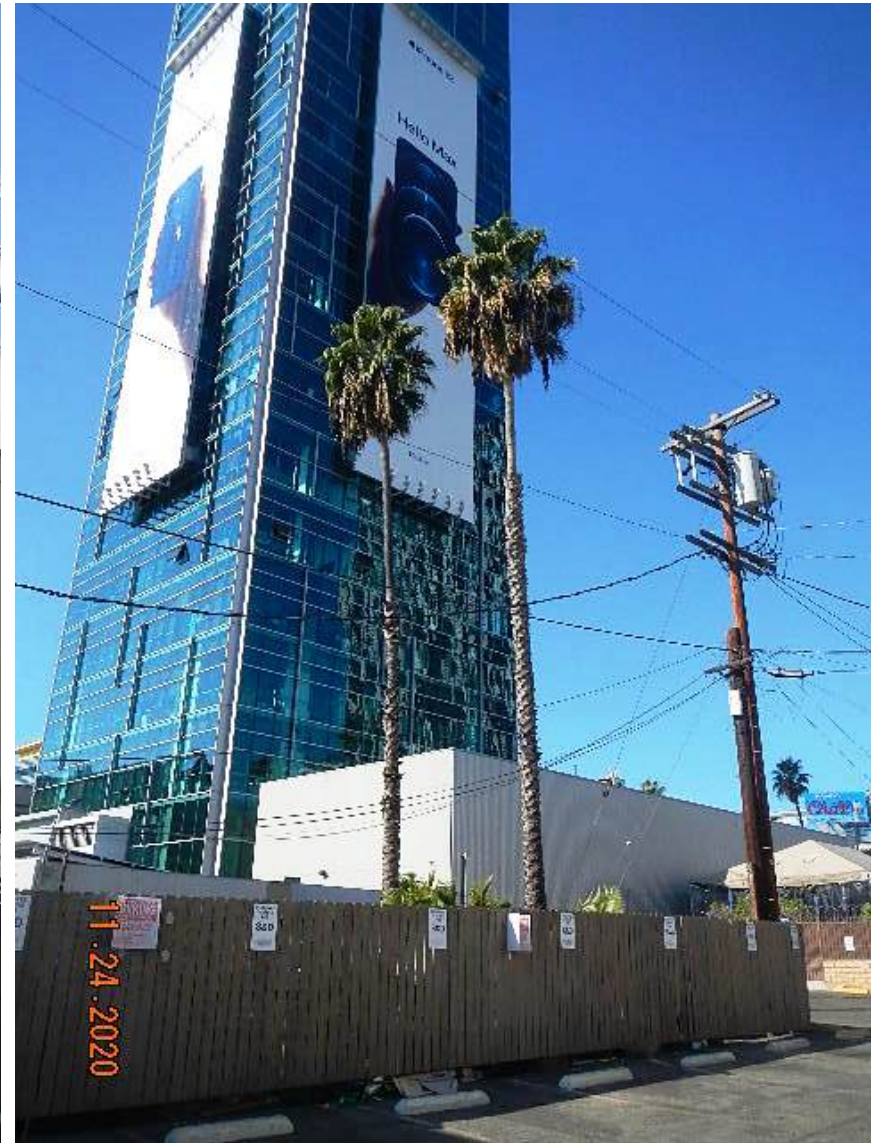


Beth W. Palys, FASAE, CAE
Executive Director

D. Photographs



#1 Octopus tree behind the psychic reader & advisor.



#2 & 3 Mexican fan palms are in the center of the site.



#4 Brazil pepper is covered in the bougainvillea.



#5 Brisbane box -note that it came loose from the stake.



#5 Brisbane box's trunk leans against the collar.



#6 Brisbane box also came loose from the stake.



#6 Brisbane box's trunk leans against the collar.



#7 Jacaranda – note the artificial turf over the root zone.



#8 Jacaranda – note the four equal primary limbs



#9, 10 & 11 Mexican fan palms



#9, 10 & 11 Mexican fan palms also have artificial turf below.



Note the trunk damage on #9, 10 & 11 Mexican fan palms.



#12 & 13 Mexican fan palms are much taller and have thicker trunks.



Note old gaff wounds do not “heal”.

E. Glossary

ANSI-A300	American National Standards Institute performance standards for the care and maintenance of trees, shrubs and other woody plants.
Arboricultural	Pertaining to the awareness, care, evaluation, identification, growing, maintenance, management, planting, selection, treatment, understanding, valuation and so forth of trees and other woody plants and their growing environments, particularly in shade and ornamental (non-crop/commodity) settings.
Arborist	A person possessing the technical competence through experience and related training to provide for or supervise the management of trees or other woody plants in a landscape setting.
ASCA	The American Society of Consulting Arborists, Inc. a professional society, as described in its by-laws.
Bark	Tissue on the outside of the vascular cambium. Bark is usually divided into inner bark - active phloem and aging and dead crushed phloem - and outer bark.
Caliper	Diameter of a nursery-grown or small size tree trunk. Larger trees are usually measured at 4.5 feet (see DBH) Trees with calipers 4 inches and below are measured at 6 inches above grade(ANSI Z60-1-1990) Trees above 4 inches, but still transplantable are measured at 12 inches above grade.
Canopy	The live, foliage-bearing part of a tree.
Climbing spurs	Sharp, pointed devices strapped to a climber's lower legs used to assist in climbing trees. (syn.: gaffs, hooks, spurs, spikes, climbers)
Codominant	Leaders equal in size and relative importance, developed from 2 apical buds at the top of a stem. Each codominant stem is an extension of the stem below it. There are no branch collars or trunk collars at the bases of codominant stems.
Compaction	(Soil Compaction) The compression of soil, causing a reduction of pore space and an increase in the bulk density of the soil. Tree roots cannot grow in compacted soil.
Conifer	Cone bearing shrub or tree, e.g. pines and cypress (or modified cone-like structure as in Podocarpus and Taxus)
Crotch	The union of two or more branches; the axillary zone between branches.
Crown	The upper portions of a tree or shrub, including the main limbs, branches, and twigs.

DBH	Diameter of the trunk, measured at breast height or 54 inches above the average grade. See caliper.
Decay	Progressive deterioration of organic tissues, usually caused by fungal or bacterial organisms, resulting in loss of cell structure, strength, and function. In wood, the loss of structural strength.
Deciduous	Trees or shrubs which shed their leaves at the end of each growing season.
Decline	Progressive reduction of health or vigor of a plant.
Dieback	Progressive death of buds, twigs and branch tissues, on individual limbs, or throughout the canopy.
Dripline	A projected line on the ground that corresponds to the spread of branches in the canopy; the farthest spread of branches.
Fertilization	The process of adding nutrients to a tree or plant; usually done by incorporating the nutrients into the soil, but sometimes by foliar application or injection directly into living tissues.
Flush cut	Pruning technique in which both branch and stem tissue are removed, generally considered poor practice
Foliage	The live leaves or needles of the tree; the plant part primarily responsible for photosynthesis.
Gaffed	Damaged by climbing spikes
Girdling root	A root that partially or entirely encircles the trunk and/or buttress roots, which could restrict growth and downward movement of photosynthate and/or water and nutrients up.
Heading	Pruning techniques where the cut is made to a bud, weak lateral branch or stub.
Included bark	Bark or cortex tissue that is included or trapped between close-growing branches. Usually found in narrow or tight crotches.
Leader	A main stem or branch of a tree that is (usually) codominant with other main stems.
Limb	A large lateral branch growing from the main trunk.
Lion-tailing	The removal of all, or a great deal of, the inner branches and/or watersprouts from the crown of a tree. Lion's Tailing is not an acceptable pruning practice, see ANSI A-300.10.1.7.
Mature	Plant will respond to flower-inducing conditions, in contrast with juvenile.
Over-lifted	removing more than the lower one third of scaffold limbs.

Palm	A tropical or subtropical monocotyledonous tree or shrub, having “wood” formed from primary rather than secondary tissue, usually having an unbranched trunk lacking a ring-like meristem, i.e. cambium, and evergreen, fan or feather-shaped leaves formed from the tip. Lacking a ring-like meristem, but rather having vascular bundles scattered in parenchymatous ground tissue with fibers and specialized silica bodies surrounded by a narrow cortex, palms do not form wood as do dicotyledons.
Pruning:	The selective removal of plant parts to meet specific goals and objectives
Root flare	The flared area at the base of a tree where the roots and trunk merge. Also referred to as the "root crown" or "root collar".
Root system	The portion of the tree containing the root organs, including buttress roots, transport roots, and fine absorbing roots; all underground parts of the tree.
Root zone	The area and volume of soil around the tree in which roots are normally found. May extend to three or more times the branch spread of the tree, or several times the height of the tree.
Scaffold limb	Primary structural branch of the crown.
Species	Taxonomic classification below genus.. 1. A group of plants with common characteristics or consistent differences in morphology, ecology or reproductive behavior, distinct from others of the same genus. 2. The basic unit in plant taxonomy; the Latin binomial consisting of the genus and specific epithet; it is both singular and plural.
Specimen	a tree or shrub large or striking enough to make an immediate, significant impact in a planting, or a single large plant in a conspicuous location in the garden. <i>Sunset Western Garden Book</i>
Street tree	A tree growing adjacent to dedicated roadways and within the city’s right of way.
Stress	"Stress is a potentially injurious, reversible condition, caused by energy drain, disruption, or blockage, or by life processes operating near the limits for which they were genetically programmed." Alex Shigo
Trees	An arborescent woody plant, with a single or few trunks near the base
Trunk	The main stem or axis of a tree that is supported and nourished by the roots and to which branches are attached.
Vigor	Active, healthy growth of plants: ability to respond to stress factors.

Disclaimer

The best current information on tree evaluation has been applied. However, even when every tree is inspected, inspection involves sampling, therefore some areas of decay or weakness may be missed. Weather, winds and the magnitude and direction of storms are not predictable and some failures may still occur despite the best application of high professional standards. Future tree maintenance will also affect the trees health and stability and is not under the supervision or scrutiny of this consultant. Continuing construction activity such as trenching will also affect the health and safety, but are unknown and unsupervised by this consultant. Trees are living, dynamic organisms and their future status cannot be predicted with complete certainty by any expert. This consultant does not assume liability for any tree failures involved with this project.

Certification

I, Gregory W. Applegate, certify to the best of my knowledge and belief:

That the statements of fact contained in this report are true and correct. That the report analysis, opinions, and conclusions are limited only the reported assumptions and limiting conditions, and are my personal unbiased professional analysis, opinions and conclusions.

That I have no present or prospective interest in the vegetation that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

That my compensation is not contingent upon a reporting that favors the cause of the client, the attainment of stipulated result, or the occurrence of a subsequent event.

That my analysis, opinions, and conclusions were developed, and this report has been prepared, in conformity with the standards of arboricultural practice.

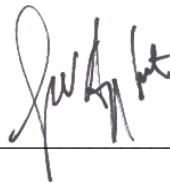
That I have made a personal inspection of the plants that are the subject of this report. No one provided significant professional assistance to the person signing this report.

Arborgate Consulting, Inc.

Gregory W. Applegate, ASCA, ASLA

Registered Consulting Arborist #365

Certified Arborist WE-0180a



Date 11-30-20