

June 20, 2021

Nick Pappani Vice President Raney Planning and Management, Inc. 1501 Sports Drive, Suite A Sacramento, CA 95834

RE: Arborist Report, Lincoln Square

Nick,

Attached is the Arborist Report you requested. I appreciate the opportunity to work with you. Please do not hesitate to contact me should you have questions regarding this report.

Sincerely,

John M. Lichter, M.S.

ASCA Registered Consulting Arborist #375

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ISA Certified Arborist #863

ISA Qualified Tree Risk Assessor

ASCA Qualified Tree and Plant Appraiser





ARBORIST REPORT LINCOLN SQUARE PROJECT DIXON, CALIFORNIA

Prepared for RANEY PLANNING AND MANAGEMENT, INC. SACRAMENTO, CALIFORNIA

Prepared by TREE ASSOCIATES John M. Lichter, M.S.

ASCA Registered Consulting Arborist #375
ISA Certified Arborist #863
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Assignment

Nick Pappani, Vice President of Raney Planning and Management Inc. of Sacramento requested that Tree Associates Inc. prepare an Arborist Report concerning trees with diameters equal to or exceeding six inches located on a vacant property bounded by Vaughn Road and (Lincoln) Highway 113 (Figure 1). This Arborist Report includes a tree evaluation and general preservation guidelines for these trees.

Limits of the Assignment

- This evaluation reports on the condition of the subject trees at the time of my site visit. Tree conditions change over time and, as they change, this report may need to be revised.
- This evaluation was based on a visual inspection from the ground.
- The results of the evaluations for trees for which more detailed examination and/or testing and is recommended (including aerial inspection, decay mapping and/or root examination) are provisional, pending the outcome of these studies.



Tree Evaluation

On June 15, 2021, I identified, tagged in the field, measured and evaluated all trees with a diameter of 6 inches or larger on site. For each of these trees, the following data were collected.

- Tree # corresponds to a round aluminum tag affixed to each protected tree (I used tags 501 to 532). Note that I lost tag 512 so there is no tree on the map or in the table with that number.
- Species common and scientific name of the tree.
- Trunk Diameter (Dia.) the diameter of the tree (in inches) at 4.5' above grade, unless measurement at another location between 1 and 5 feet above grade provided a more accurate reflection of the size of the tree.
- Maximum Dripline Radius (Max Drip.) the approximate maximum distance from the trunk to the edge of the tree's canopy, in feet.
- Tree Protection Zone (TPZ) the radius, in feet, of a circular tree protection zone (centered at the trunk) recommended by the author (typically one foot per inch trunk diameter). For trees with more than one trunk, I first determined the sum of the diameter (in inches) of the largest stem and half of the diameter of the smaller stems. Then I used one foot per inch of this sum as the TPZ.
- Comments comments regarding tree and landscape features that influenced health and structural ratings.
- Health rating between poor and good considering the overall health of the tree. A rating of fairgood or good indicates no significant health concerns.
- Structure rating between poor and good considering the overall structure of the tree. A rating of fair-good or good indicates no significant structural concerns.
- Recommendations recommendations for tree work or treatments to improve tree structure or health or for further evaluation, where necessary. Note: removal recommendations are indicated in red.



Summary of Tree Evaluation

Exhibit 1, entitled "Tree Evaluation Data" summarizes the results of the tree evaluation. The approximate locations of the trees can be found attached on a copy of a topographic survey of the property (Figure 1 and attached).

Project and Tree Location, Number of Trees, Species Makeup, Size:

The project site was a vacant lot bounded by Vaughn Road to the north and Highway 113 to the east. Residences and businesses border the property on its west and south sides, respectively.

There were 31 trees with trunk diameters of six inches or greater located in a row along the western edge of the property (Figures 2,3). Other than five volunteer trees, the trees had been planted on site.

The planted trees were relatively young (I estimated between 20-25 years old) London plane (*Platanus* X *acerifolia*) and coast redwood (*Sequoia sempervirens*). Their trunk diameters ranged from 8 to 19 inches. The volunteer trees were three almond (*Prunus dulcis*), one coast live oak (*Quercus agrifolia*) and one Chinese pistache (*Pistacia chinensis*). I estimated that these trees were less than 12 years old.

Pyracantha (a shrub) had been along with the trees and it was now a dense, nearly impenetrable thicket extending. In some cases its growth extended ¾ of the way up the tree trunks. In several locations I had to cut my way through it to get to the tree trunks (Figure 4).

While it appears that the trees were once irrigated (I saw broken irrigation pipes and sprinklers), the trees were not currently irrigated and had not been for an unknown amount of time.



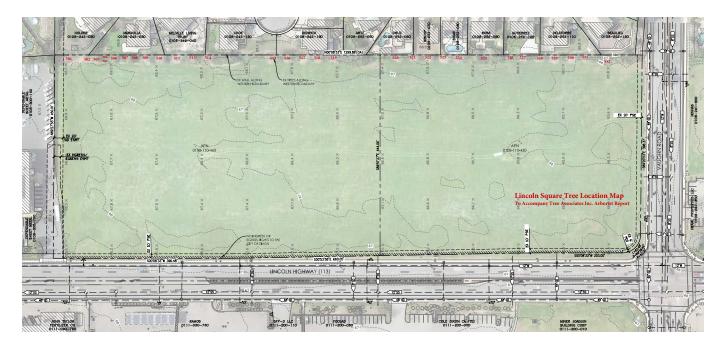


Figure 1. Topographic Plan/Aerial View of project site. Larger size map is attached.



Figure 2. Looking west-northwestward at a portion of the subject trees in the southern portion of the landscaped edge of the lot. The residences are located behind the trees.





Figure 3. Looking westward at a portion of the subject trees with Vaughn Road visible on the right.



Figure 4. Example of pyracantha growth under one of the trees. I cut a tunnel through it to get to the tree's trunk.



Tree Health:

Sixteen percent (5) of the trees were in fair-good health with no significant health concerns. Forty-two percent (13) of the trees were in fair condition and 42 percent (13) of the trees were in poor or poor-fair health (Figure 5).

All of the trees were suffering from drought stress. Due to their current condition and the severe drought this year, the trees' health will decline further (and trees will die) unless they are irrigated very soon. Even if the trees are irrigated right away, the health of the trees should be re-evaluated over the summer for the trees which are to be preserved.

In several cases, pyracantha had grown over the branches of the trees. The shade cast by their foliage may have killed some of the branches (or portions of them) and the pyracantha should either be removed or cut back to clear the tree canopies.

Tree Structure

Ten of the trees (32% of the total) had fair-good or good structure. Seventeen of the trees (55% of the total) had fair structure. The remaining thirteen percent (or 4) of the trees had poor-fair or poor structure (Figure 6).

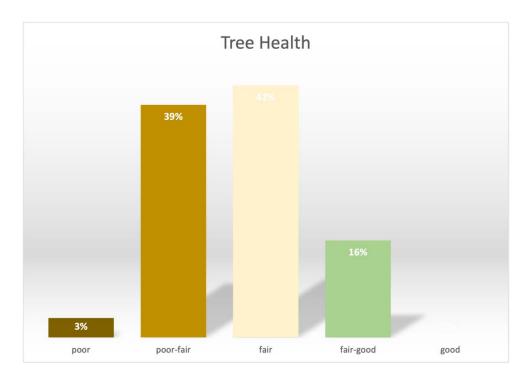


Figure 5. Tree health ratings.



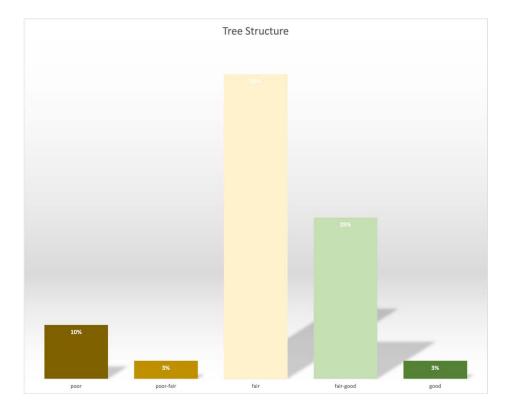


Figure 6. Structural ratings of trees.

Removal Recommendations, Recommendations to Improve Tree Condition I recommend the following.

- Remove the four trees (13% of the total) as recommended in Exhibit 1 due to their poor health and/or structure and the lack of effective treatments to improve their condition.
- Cut the pyracantha and oleander back so that it does not shade the trees and to enable repairing the irrigation system.
- Repair or replaced the irrigation system so that it is capable of uniformly wetting the soil under the canopies of the trees.
- Irrigate the trees (between late spring through early fall) once per week, wetting the soil to at least 18 inches deep.
- Evaluate the health of the trees just before the irrigation system is installed and monitor the trees' health throughout the summer and fall.
- Follow specific recommendations in Exhibit 1.



Tree Preservation Guidelines

Following the guidelines presented below for all trees to be preserved will reduce tree impacts from the proposed construction.

- Tree preservation measures should be indicated on construction plans.
- Indicate surveyed trunk locations and tree protection zones (TPZ's) as described in the attached table on all construction plans for trees to be preserved. Note, where infrastructure is located within protection zones, indicate modified tree protection zones (MTPZ's) and fencing as close to infrastructure as possible (minimize overbuild).
- Engage the Consulting Arborist to prepare a tree impact assessment after construction plans are drafted. The tree impact assessment should be revised as construction plans are modified.
- Conduct a meeting with the project manager and design team to review the tree impact
 assessment and discuss design modifications to mitigate potential development impacts to trees
 where possible.
- Conduct a meeting to discuss tree preservation guidelines with the Consulting Arborist and all
 contractors, subcontractors and project managers prior to the initiation of demolition and
 construction.
- Any pruning required for construction or recommended in this report should be performed by an ISA Certified Arborist or Tree Worker. Pruning for necessary clearance should be the minimum required for the project performed prior to demolition by an ISA Certified Arborist.
- Prior to any grubbing, demolition or construction activity, identify (tagged) trees to be preserved and install tree protection fencing as indicated on the construction plans.
- Tree protection fences should be made of chain link with posts either sunk into the ground or placed within concrete blocks. Install two signs per tree on fences that indicate that the fences are not to be moved until construction is complete except under Arborist supervision.
- Avoid grading, compaction, trenching, rototilling, vehicle traffic, material storage, spoil, waste or washout or any other disturbance within TPZ's/MTPZ's.
- Any work that is to occur within the protection zones of the trees should be monitored by the Consulting Arborist.
- Prior to trenching or grading within the protection zone of trees, carefully excavate, expose and mark roots >/= 2" diameter and preserve if possible or cut cleanly with a sharp saw under Arborist supervision.
- If roots >/= 2 inches or limbs larger than 3 inches in diameter are cut or damaged during construction, contact Consulting Arborist as soon as possible to inspect and recommend appropriate remedial treatments.
- All trees to be preserved should be irrigated once every week during non-Winter months to uniformly wet the soil to a depth of at least 18 inches under and beyond their canopies.



Arborist Disclosure Statement

The following statement pertains to my work and this report.

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. 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, 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 all trees.



Glossary¹

Bow – the gradual curve of a branch or stem.

Callus – growth resulting from and found at the margin of wounds.

Canker – a localized area of dead tissue on a stem or branch, caused by fungal or bacterial organisms.

Central Leader – the main stem of the tree.

Chlorotic – yellow.

Codominant – equal in size and relative importance.

Crown – parts of the tree above the trunk.

Crown Clean – the removal of dead, dying, diseased, broken, and weakly attached branches and watersprouts from a tree's crown.

Decay – process of degradation of woody tissues by fungi and bacteria.

Dieback – death of shoots and branches, generally from tip to base.

Dropcrotch – the process of shortening trunks or limbs by pruning back to dominant lateral limbs.

End Weight – the concentration of foliage at the distal ends of branches.

Epicormic – shoots which result from adventitious or latent buds; often indicates poor vigor.

Included bark – pattern of development at branch junctions where bark is turned inward rather than pushed out.

Primary limb – limb attached directly to the trunk.

Reduction cut – shortening the length of a branch or stem by cutting it back to a lateral branch of at least one-third the diameter of the cut stem.

Root crown – area at the base of a tree where the roots and stem merge.

Secondary limb – limb attached directly to a primary limb.

Sound wood – undecayed wood.

Suppressed – trees which have been overtopped and whose crown development is restricted from above.

Target – people or property potentially affected by tree failure.

Topped – Pruned to reduce height by cutting large branches back to stubs.

Train – to prune a young tree to establish a strong structure.

Vigor – overall health.

Watersprouts – vigorous, upright, epicormic shoots that grow from latent buds in older wood.



1 Definitions from author or Matheny and Clark, Evaluation of Hazard Trees in Urban Areas, 2nd Edition c 1994, ISA.

Certification of Performance

I, John M. Lichter, certify:

- That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and the Terms and Conditions;
- That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions and conclusions stated herein are my own, and are based on current scientific procedures and facts;
- That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events;
- That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;
- That no one provided significant professional assistance to the consultant, except as indicated within the report.

John M. Lichter, M.S.

ASCA Registered Consulting Arborist #375

ISA Certified Arborist #863

ISA Qualified Tree Risk Assessor

ASCA Qualified Tree and Plant Appraiser



ASSUMPTIONS AND LIMITING CONDITIONS: TREE ASSOCIATES, INC.

- 1. Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships 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 or evaluated as though free and clear, under responsible ownership and competent management.
- 2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.
- 3. 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.
- 4. 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.
- 5. Unless required by law otherwise, possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
- 6. 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 written or verbal consent of the consultant/appraiser particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant/appraiser as stated in his qualifications.
- 7. 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.
- 8. Sketches, drawings, and photographs in this report, being intended as 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 architects, engineers, or other consultants on any sketches, drawings, or photographs is for the express purpose or coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by John M. Lichter or TREE ASSOCIATES as to the sufficiency or accuracy of said information.
- 9. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) 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.
- 10. Loss or alteration of any part of this report invalidates the entire report.



		l	Max.					
Tree	l	Dia.	Drip					
#	Species	(in.)	(ft.)	(ft.)	Comments	Health	Structure	Recommendations
501	London plane (Platanus X acerifolia)	8	14	8	anthracnose; sycamore scale; low vigor; drought stress symptoms; limbs cut to stubs on north side	poor-fair	fair-good	irrigate.
502	London plane (Platanus X acerifolia)	9	14	9	anthracnose; sycamore scale; low vigor; drought stress symptoms; limbs cut to stubs on north side	poor-fair	fair	irrigate.
503	coast redwood (Sequoia sempervirens)	18	14	18	low vigor; drought stress symptoms	fair	good	irrigate.
504	almond (<i>Prunus</i> dulcis)	4,4	12	6	codominant trunks with included bark; unbalanced crown	fair-good	poor	remove tree. poor suitability for preservation due to poor structure
505	almond (Prunus dulcis)	5,4,4	14	11	codominant trunks with included bark	fair-good	poor	remove tree. poor suitability for preservation due to poor structure
506	coast redwood (Sequoia sempervirens)	17	14	17	top dead; limb dieback; redwood canker symptoms	poor	poor	remove tree. irreversible decline in health.
507	coast live oak (Quercus agrifolia)	7	8	7	lower limbs removed by homeowner	fair-good	fair	select leader, drop crotch competing trunks or primary limbs. irrigate.
508	coast redwood (Sequoia sempervirens)	19	14	19	redwood canker symptoms; codominant trunks near top	fair	fair-good	remove one leader. crown clean. irrigate.
509	London plane (Platanus X acerifolia)	13	20	13	multiple trunks near top of tree; low vigor; anthracnose; sycamore scale	fair	fair	select leader, drop crotch competing trunks or primary limbs. irrigate.

Tree		Dia.	Max. Drip	TPZ				
#	Species	(in.)	(ft.)		Comments	Health	Structure	Recommendations
510	London plane (Platanus X acerifolia)	12	20	12	codominant trunks; anthracnose; sycamore scale; slightly overextended primary limbs	fair	fair	select leader, drop crotch competing trunks or primary limbs. use reduction cuts to remove 20% of the foliage of all primary limbs > 1/3 trunk diameter at their attachment. irrigate.
511	London plane (Platanus X acerifolia)	12	24	12	codominant trunks; sparse canopy; anthracnose; sycamore scale	poor-fair	fair-good	select leader, drop crotch competing trunks or primary limbs. irrigate.
513 *	London plane (Platanus X acerifolia)	9	16	9	low vigor; sparse canopy; pyracantha 1/2 way up trunk	fair	fair	remove pyracantha. irrigate.
514	London plane (Platanus X acerifolia)	12	20	12	low vigor; sparse canopy; drought stress symptoms; anthracnose; sycamore scale; pyracantha 2/3 way up trunk	fair	fair	remove pyracantha. irrigate.
515	London plane (Platanus X acerifolia)	12	20	12	anthracnose; sparse canopy; sycamore scale; drought stress symptoms	poor-fair	fair-good	irrigate.
516	London plane (Platanus X acerifolia)	9	15	9	anthracnose; sparse canopy; sycamore scale; drought stress symptoms	poor-fair	fair-good	irrigate.
517	London plane (Platanus X acerifolia)	11	20	11	sparse canopy; low vigor; anthracnose; sycamore scale; drought stress symptoms	poor-fair	fair	irrigate.
518	London plane (Platanus X acerifolia)	10	19	10	low vigor; sparse canopy; anthracnose; sycamore scale; drought stress symptoms	poor-fair	poor-fair	irrigate.

			Max.					
Tree #	Species	Dia. (in.)	Drip (ft.)	TPZ (ft.)		Health	Structure	Recommendations
	London plane (Platanus X acerifolia)	11	16		codominant trunks; sparse canopy; low vigor; drought stress symptoms; anthracnose; sycamore scale; pyracantha 2/3 way up trunk	fair	fair	remove pyracantha. irrigate.
520	London plane (Platanus X acerifolia)	11	17	11	sparse canopy; anthracnose; sycamore scale; drought stress symptoms	poor-fair	fair	irrigate.
521	London plane (Platanus X acerifolia)	9	17	9	codominant trunks; anthracnose; sparse canopy; drought stress symptoms; pear tree volunteer at base	poor-fair	fair	remove pear tree. irrigate.
522	London plane (Platanus X acerifolia)	10	15	10	codominant trunks; anthracnose; low vigor; drought stress symptoms; sparse canopy; sycamore scale	poor-fair	fair	irrigate.
523	London plane (Platanus X acerifolia)	13	19	13	codominant trunks; Boston ivy growing up trunk; pistache volunteer tree under canopy; drought stress symptoms; sparse canopy; anthracnose; sycamore scale	fair	fair	remove Boston ivy and Chinese pistache. select leader, drop crotch competing trunks or primary limbs. irrigate.
524	London plane (Platanus X acerifolia)	13	22	13	leader partially outgrown by lateral limbs; anthracnose; drought stress symptoms; low vigor; sparse canopy; sycamore scale; pyracantha 3/4 way up trunk	fair	fair	remove pyracantha. irrigate.
525	coast redwood (Sequoia sempervirens)	13	12	13	drought stress symptoms; wilted; redwood canker symptoms;	poor-fair	fair-good	remove tree. irreversible decline in health.
526	almond (Prunus dulcis)	6,3,1	10	10	codominant trunks with included bark	fair-good	fair	select leader, drop crotch competing trunks or primary limbs. irrigate.

Tree		Dia.	Max. Drip	TPZ				
#	Species	(in.)	(ft.)			Health	Structure	Recommendations
527	London plane (Platanus X acerifolia)	9	18	9	codominant trunks; anthracnose; drought stress symptoms; low vigor; sycamore scale; sparse canopy	poor-fair	fair	irrigate.
528	London plane (Platanus X acerifolia)	9	16	9	anthracnose; drought stress symptoms; low vigor; sparse canopy; sycamore scale	fair	fair-good	irrigate.
529	London plane (Platanus X acerifolia)	12	21	12	anthracnose; drought stress symptoms; low vigor; sparse canopy; sycamore scale	fair	fair	irrigate.
530	London plane (Platanus X acerifolia)	11	16	11	anthracnose; drought stress symptoms; low vigor; sparse canopy; sycamore scale	fair	fair-good	irrigate.
531	London plane (Platanus X acerifolia)	10	19	10	anthracnose; drought stress symptoms; low vigor; sparse canopy; sycamore scale	fair	fair-good	irrigate.
532	Chinese pistache (Pistacia chinensis)	6,3	16	8	volunteer tree; trunk bowed; slightly low vigor; limb attachments with included bark; growing up through pyracantha	fair-good	fair	remove pyracantha. select leader, drop crotch competing trunks or primary limbs. remove lowest primary limb with included bark. irrigate.

