

December 20, 2007

Mr. John Cotton  
John Cotton Architects  
3816 Main Street  
Culver City, CA 90232

Subject: Oak Tree Report for the Proposed Senior Apartments, Calabasas Development,  
4803 El Canon Avenue Project Site – LSA Project No. JCT0602

Dear Mr. Cotton:

This Oak Tree Report documents the findings of the on-site oak tree assessment conducted by LSA Associates, Inc. (LSA) for the purpose of identifying all oak trees within the property limits of the proposed Senior Apartments, Calabasas Development, at 4803 El Canon Avenue (the project site). Within the boundaries of the proposed project site, LSA located 14 coast live oak trees (*Quercus agrifolia*), of which 13 had a diameter at breast height (DBH) of at least 2 inches. Tree number 11 has a DBH of 1.5 inches, which does not qualify for coverage under the City ordinance. One of these trees is considered a heritage oak, with a diameter of 28 inches DBH. Based on the results of the field assessment, it is concluded that as currently designed, the proposed project will impact 5 coast live oak trees, including one heritage oak, located within the project footprint. Three of the trees will be encroached upon and two will be removed. In addition, there are 13 oak trees on the property immediately adjacent to the project site.

## BACKGROUND

The City of Calabasas (City) Municipal Code Oak Tree Ordinance, Section 17.26070 states that “any person or entity that owns, controls, or has custody or possession of any real property in the city must maintain all oak trees in good health in accordance with the most current Oak Tree Preservation and Protection Guidelines (Guidelines) adopted by council Resolution 91-36. An oak tree permit is required for the alteration of any oak tree on any real property within the city pursuant to the provisions of the city oak tree ordinance and the Guidelines. Permit processing requires that the applicant submit all information required by the Guidelines and pay appropriate filing fees to the city.”

Therefore, an oak tree inventory was conducted to comply with the requirements of the City Municipal Code Oak Tree Ordinance, Section 17.26070, which requires that an Oak Tree Report be completed by a City-qualified arborist. The inventory was conducted to locate oak trees within the project site that could potentially be impacted by project construction, analyze potential impacts of the proposed development activities upon the oak trees, and provide a mitigation program for the proposed impacts.

## STUDY AREA

LSA was retained by John Cotton Architects to prepare an Oak Tree Report of the approximately 0.96-acre proposed Senior Apartment Development project site (Assessor's Parcel Number 2068-004-026) located at 4803 El Canon Avenue in the City of Calabasas, Los Angeles County. Specifically, the project area is mapped within the northwest quarter of Section 23 of Township 1 North, Range 17 West, of the *Calabasas, California 7.5'* USGS quadrangle map (Figure 1, attached).

## METHODS

An on-site oak tree inventory survey was conducted on November 3, 2006, by LSA biologists Blake Selna (ISA Certified Arborist WE-7397A) and Leo Simone. The entire project site was surveyed on foot, and all coast live oak trees were inventoried, assigned a number, and evaluated for the following attributes:

- Location (using a global positioning system [GPS])
- Diameter at 4.5 feet above average natural grade (DBH)
- Diameter of the canopy drip line
- Tree height
- Canopy dimensions, eight compass points
- Percent canopy cover
- Condition/health
- Trees were tagged with numbered aluminum tags attached to the trees on their north sides

## DISCUSSION

A total of 14 coast live oak trees were inventoried and evaluated. Figure 2 shows the location of the qualifying, inventoried trees within the proposed project limits as well as the location and canopy of oak trees on adjacent property. Tree number 11 is not shown on the exhibits because it does not satisfy the size criterion for coverage under the ordinance. Tree number 12 is not shown because it was toppled by heavy winds after the initial data collection was completed for this report. On Figures 2 and 2a, the trunk locations, represented by the numbered icons, are displayed in the actual location within the canopy. Figure 2 shows the aerial photograph, the property boundary, creek setback, and the tree locations at a scale of 1"=50'. Figure 2a shows the location of proposed improvements and the tree locations at a scale of 1"=20'. The measured dripline (pink) and the protected zone (green hatching) are also displayed. The trunk locations were verified using the civil survey data provided by the Mollenhauer Group. The canopy data were collected by LSA using a Trimble GeoXH GPS unit as well as physical measurements taken during the field visit. Data were post-processed to sub-meter accuracy. Figures 3–7 show photographs of the trees. Because of intertwined canopies and limited vantage points, the individual trees were difficult to photograph in some cases.

The majority of these trees are located along the southern and western boundaries of the project site, adjacent to Calabasas Creek and the adjacent apartment building. The diameters ranged from 1.5 to 28.0 inches DBH, the canopy drip lines ranged from 7 to 54 feet in diameter, and the heights ranged

from 9 to 53 feet. Tables A and B, attached, summarize the inventory results and relevant data for the oak trees located on the proposed project site. Table A contains the DBH, canopy dimensions, and vertical elevation of grade-to-branch structure. Table B contains the approximate Production Replacement Cost for the trees that will be removed. Production replacement cost (PRC) values were calculated based on the Guidelines and estimates from Valley Crest Nursery in Fillmore, California.

All of the oak trees were healthy and vigorous at the time of the survey and did not exhibit signs of infestation or disease. Trees 1 through 6 and 8 through 10 have ivy growing on them, which can be detrimental to the health and structural integrity of the trees if it goes unchecked. All of the oak trees except number 13 have relatively poor growth form due to other adjacent trees and/or structures on the site (e.g., chain-link fence, outbuildings).

Trees 8, 9, and 10 will be encroached upon by the excavation of the underground parking garage. The trees are heavily lopsided to the south and east, away from the project site. Impacts to the roots on the northwest side of the trees will weaken the support structure of the trees, creating an unsafe condition, and may lead to windthrow. Personal injury or property damage could result from such tree failure. The approval of the project requires the retention of trees 8, 9, and 10; therefore, significant tree protection and stabilization measures will be required, such as guying and/or staking. Such stabilization measures are not included in the scope of this report. Careful removal of roots (per ISA standards) within the grading limits and restriction of above-ground activities (per mitigation measures, below) within the protected zone are recommended for the long-term health of the trees.

Besides the 14 coast live oak trees identified on site, an additional 47 nonnative, mostly ornamental trees were observed on site. Among the tree species most frequently found on site were Chinese evergreen elm (*Ulmus parvifolia*), ash (*Fraxinus* spp.), and crape myrtle (*Lagerstroemia indica*).

Oak trees 1 through 6 and 14 are growing along a perennial drainage (Calabasas Creek) and may be considered oak riparian habitat by the California Department of Fish and Game (CDFG). The trees on the west side of the fence would definitely be under CDFG jurisdiction. If the trees are to be impacted by the proposed project, the CDFG will require a 1602 Notice of Streambed Alteration for those impacts, including a document addressing the requirements of the California Environmental Quality Act (CEQA).

Based on the grading plans, it appears that two of the qualifying oaks (Nos. 7 and 13) will be removed for the construction of the proposed building and/or underground parking garage. Because tree number 11 has a DBH of 1.5 inches, no permit or mitigation is required for that particular tree. Because tree number 12 was toppled by heavy winds, no permit or mitigation is required for that tree. The trees to be removed are outside of the likely CDFG jurisdictional limits.

## MITIGATION PROGRAM

The City's oak tree permit conditions require that a mitigation program be developed for proposed impacts. Several options are available to offset the loss of oak tree inventory on the site. A loss in oak tree inventory on the site shall be described in terms of species, total inches of diameter aggregate loss, and the magnitude of the impacts. The City may attach the following conditions, or a combination thereof, on an oak tree permit that may include the following:

1. A cash fee paid to the oak tree mitigation fund, which shall include maintenance and monitoring costs. The determination of the dollar value, cost or loss shall be calculated in accordance with the most current mitigation schedule established by the City Council. The Council shall review and approve such fees at least once every three years. The City may accept appropriate dedication of land in lieu of cash.
2. One inch of oak tree diameter shall be planted for each inch of tree removed. Locations appropriate for new replacement plantings may be proposed by the applicant and approved by the City arborist prior to the granting of a permit based on the potential for long-term viability.
3. Replacement or placement of additional oak trees, associated hardwood canopy, land, or wildlife habitat to proportionally offset the impacts associated with the loss of oak trees, limbs, roots, or potential long-term adverse impacts due to alterations or encroachment within the protected zone. Locations appropriate to such new plantings may be proposed by the applicant and must be approved by City staff prior to the granting of a permit based on the potential for long-term viability.
4. Relocation of oak trees over 10 inches in diameter shall not be considered as mitigation.
5. Restrictions on construction activities within the protected zone of oak trees.
6. Remedial maintenance programs to improve the health of existing oak trees.
7. Monitoring shall be conducted during all grading and construction activities at intervals warranted by the site conditions and level of activity. The monitoring program shall consist of quantitative and qualitative observations useful in identifying stress-related responses of oak trees. Monitoring activities shall be performed in accordance with the procedures adopted in the guidelines. Following construction, annual monitoring shall be performed for a minimum of five years as warranted by site conditions, to ensure continued health of the trees and habitat areas. A City-qualified arborist shall conduct all monitoring. Costs shall be borne by the applicant. Restitution or remediation shall be required, should a project fail to comply with the desired establishment goals. Information provided by monitoring shall be used in establishing realistic mitigation measures and to ensure the future of oak resources throughout the City. Criteria for evaluating the success of oak tree preservation and establishing associated vegetation shall be specified in the permit conditions. Remediation shall be required as necessary to enable a site to meet the establishment criteria.
8. Registration. All replacement oak trees shall be registered with the City in accordance with the guidelines.
9. Maintenance. All oak trees shall be maintained in accordance with the guidelines.
10. Bond. The City may require adequate security to ensure performance, correct construction procedures, reforestation, monitoring and maintenance, in an amount to be determined by the City.
11. Recordation. As deemed necessary by the City or as set forth in the City's Municipal Code, conditions of approval for an oak tree permit shall be recorded. The specific wording of the recorded permit shall be subject to the approval of the director.

### **Mitigation for Retained Oak Trees**

For any oak tree whose removal can be avoided, the following guidelines shall be followed to avoid impacts to the retained oak trees:

1. No construction activities or placement of structures shall occur within the protected zone of any retained oak tree.
2. Landscaping, trenching or irrigation systems shall not be installed within the protected zone.
3. Activities that cause excessive compaction within the protected zone shall not be permitted.
4. Manufactured cut slopes shall not begin their downward cut within the protected zone.
5. Manufactured fill slopes shall not extend within the protected zone.
6. On-slope retaining structures, if required, shall be designed to protect the root system of retained oak trees by preserving the natural grade within the protected zone.
7. Sedimentation and siltation shall be controlled to avoid filling around bases of oak trees.
8. Construction fence shall be erected along the protected zone of retained oak trees to prevent encroachment into the protected area.

### **Monitoring Removed Oak Trees**

9. Monitoring activities for removal of oak trees shall consist of the following:
10. All oak trees designated to be removed shall be flagged prior to removal.
11. All oak tree removals will be verified to check for damage to any retained oak trees growing in close association to the removed tree.
12. Mitigation may be required for damage to any retained oak tree.

### **Mitigation Planting**

The impacts to any oak trees as a result of this project shall be mitigated by planting container-grown oak trees. To the greatest extent practicable, replacement trees will be planted on site. The balance of the replacement trees will be planted within the City. The proper planting locations should be determined by a qualified arborist or landscape contractor. Irrigation for the planted oak trees should be available for the first two to three years to increase the survival rate. The planted trees should be monitored for soil moisture level, pest/disease infestation, and herbivory.

## **CONCLUSIONS AND RECOMMENDATIONS**

Based on the current grading plan, because two qualifying oak trees would be affected by the project design, an oak tree permit will be required. One oak tree with a 28-inch DBH is considered a heritage oak by the City and may require special consideration. The total combined DBH for the trees proposed for removal is 49 inches. Mitigation is proposed through the planting of a cumulative DBH

of 49 inches of container-grown trees on lands owned by the City or in otherwise preserved lands. Monitoring and bonding shall be provided per the Guidelines.

In addition to the mitigation measures for retained trees listed above, all ivy should be removed from retained trees by a qualified landscape contractor. Ivy removal must be done carefully, taking great care to avoid damaging oak bark or branches. Use of a selective herbicide may be possible; a qualified pest control advisor should be consulted regarding any pesticide.

In addition to the 14 oak trees, numerous large trees are present on site that may provide nesting habitat for raptors and other migratory birds protected under the federal Migratory Bird Treaty Act (MBTA). Consequently, it would be prudent to do any vegetation removal outside the avian nesting period, which typically extends between January and August, or conduct nesting bird surveys prior to vegetation removal. All vegetation removal should be monitored by a qualified biologist to ensure that no oaks are inadvertently damaged or removed and to ensure compliance with the MBTA.

Additionally, the oak trees are located along Calabasas Creek and would be considered oak riparian habitat by the CDFG. If the trees are to be impacted by the grading operation, the CDFG will require a 1602 Notice of Streambed Alteration for those impacts.

Please contact me at (949) 553-0666 if you have any questions about this oak tree report.

Sincerely,

LSA ASSOCIATES, INC.



Blake Selna  
Senior Biologist  
ISA Certified Arborist WE-7397-A

Attachments: Figures 1-7  
Table A: Tree Attribute Table  
Table B: PRC Values

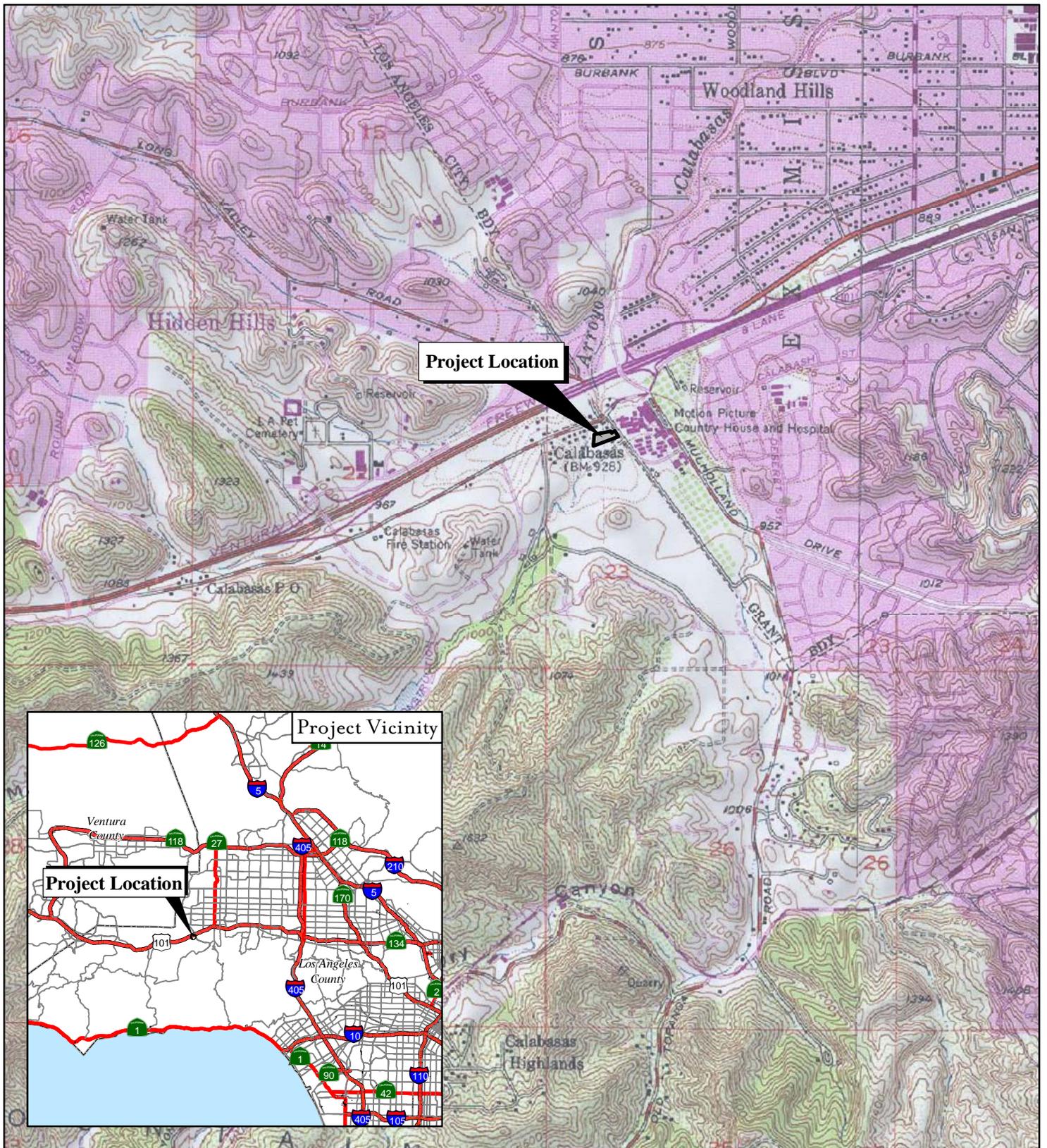
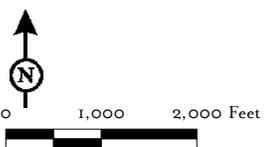


FIGURE 1

LSA



Project Location

Senior Apartments  
4803 El Canon Ave

Project Location Map

**Oak Tree Protection Guidelines:**

- 1) The protected zone of all trees to be preserved shall be fenced with chain-link fence (minimum 5 feet high) attached to posts at 8 foot intervals. Signage consistent with City of Calabasas guidelines shall be securely attached to the fence.
- 2) No excavation or trenching shall occur within the fenced protected zone of oak trees to be preserved without direct supervision from a certified arborist.
- 3) All root or limb pruning shall be done with sterilized tools per ISA standards and the guidelines provided by the City of Calabasas.

4) Vehicles, equipment, or materials shall not be allowed to come in contact with branches, leaves, trunks, or roots of the trees to be preserved. If work will encroach upon the trees, proper pruning practice shall be employed to remove the portion of the tree that is interfering with the construction activity. All removals shall be consistent with the Oak Tree Permit issued by the City of Calabasas and shall be conducted according to ISA standards, under the direct supervision of a certified arborist.

5) No materials shall be staged or stored within the protected zone. No equipment or vehicles shall be parked, driven, fueled, or otherwise maintained within the protected zone.



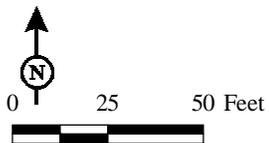
Project: 4803 El Canon Avenue, Calabasas  
 Applicant: Thomas Safran & Associates  
 Consultant/Arborist: LSA Associates, Inc.  
 20 Executive Park, Suite 200,  
 Irvine, CA 92614  
 (949)553-0666  
 Blake Selna, ISA Certified Arborist

LSA

- ✕✕ Oak Tree Protection Fence
- Proposed Grading Limits
- Estimated Property Boundary\*\*
- Estimated Centerline of Calabasas Creek
- = = 40' Setback from Creek Centerline

- ▨ Protected Zone
- On-site Canopy Limits
- ▨ Off-site Canopy Limits\*

- ⊗ Oak Tree Trunk Location (with ID)
- ⊗ Tree to Remain (1-6, 8-10, 14)
- Tree to be Removed (7, 13)



\*\* Property boundary was derived from City of Calabasas dataviewer, GPS coordinates, and CAD plans  
 \* Part of canopy is on property, but tree trunk is off of the property.

FIGURE 2

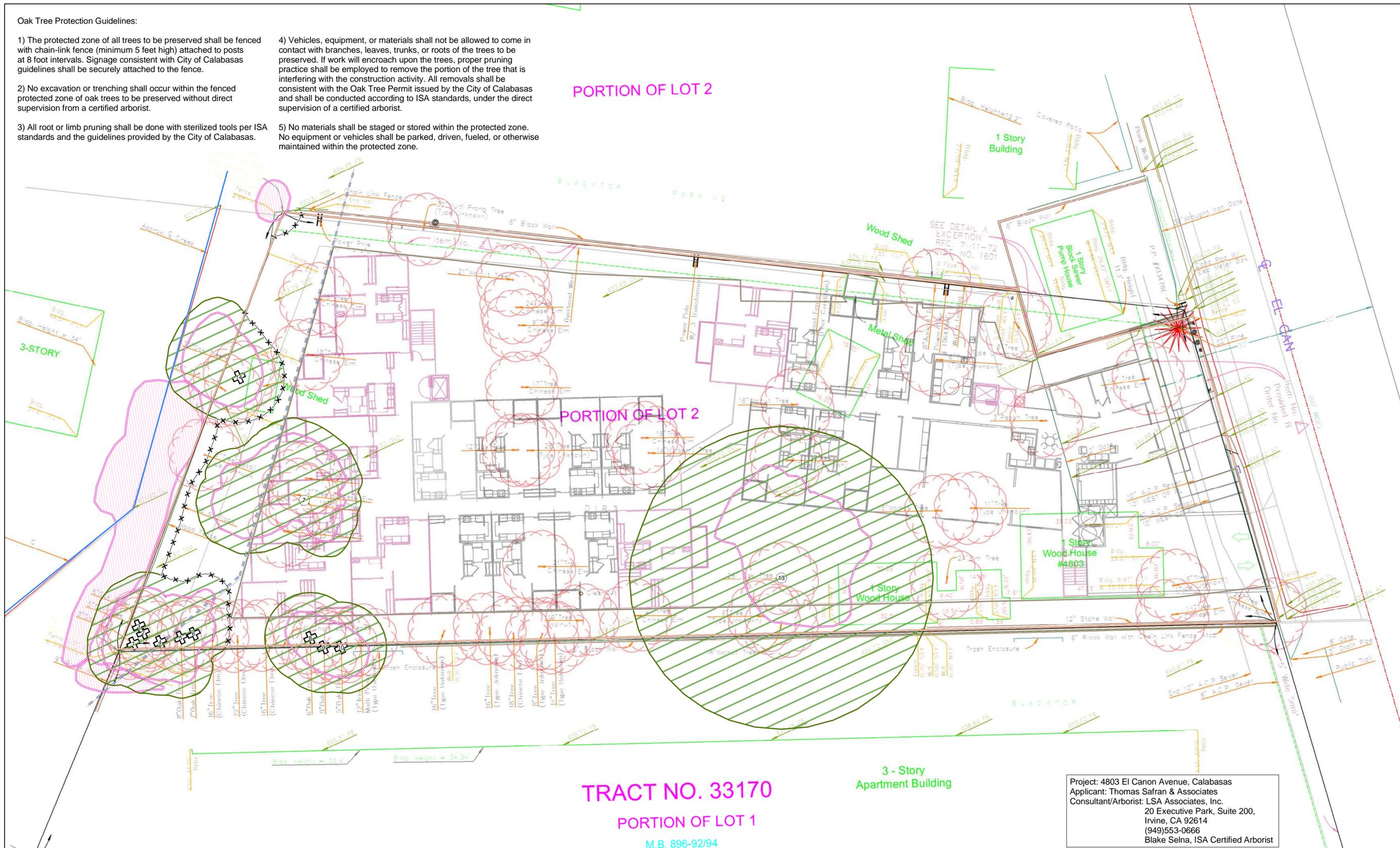
Senior Apartments  
 4803 El Canon Ave

Oak Tree Survey

SOURCE: Los Angeles County (2007); City of Calabasas parcel viewer (2006); Tree Canopy/Trunks: LSA (11/06 - GPS and field mapping); Mollenhauer Group (6/07); John Cotton FAIA Architects (6/07)

**Oak Tree Protection Guidelines:**

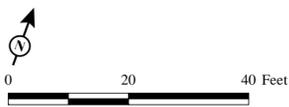
- 1) The protected zone of all trees to be preserved shall be fenced with chain-link fence (minimum 5 feet high) attached to posts at 8 foot intervals. Signage consistent with City of Calabasas guidelines shall be securely attached to the fence.
- 2) No excavation or trenching shall occur within the fenced protected zone of oak trees to be preserved without direct supervision from a certified arborist.
- 3) All root or limb pruning shall be done with sterilized tools per ISA standards and the guidelines provided by the City of Calabasas.
- 4) Vehicles, equipment, or materials shall not be allowed to come in contact with branches, leaves, trunks, or roots of the trees to be preserved. If work will encroach upon the trees, proper pruning practice shall be employed to remove the portion of the tree that is interfering with the construction activity. All removals shall be consistent with the Oak Tree Permit issued by the City of Calabasas and shall be conducted according to ISA standards, under the direct supervision of a certified arborist.
- 5) No materials shall be staged or stored within the protected zone. No equipment or vehicles shall be parked, driven, fueled, or otherwise maintained within the protected zone.



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- ✕-✕ Oak Tree Protection Fence
- Proposed Grading Limits
- Estimated Property Boundary\*\*
- Estimated Centerline of Calabasas Creek
- 40' Setback from Creek Centerline
- \*\* Property boundary was derived from City of Calabasas dataviewer, GPS coordinates, and CAD plans
- ▭ Protected Zone
- On-site Canopy Limits
- ▭ Off-site Canopy Limits\*
- ⊗ Oak Tree Trunk Location (with ID)
- ⊗ Tree to Remain (1-6, 8-10, 14)
- Tree to be Removed (7, 13)
- \* Part of canopy is on property, but tree trunk is off of the property.



SOURCE: City of Calabasas parcel viewer (2006); Tree Canopy/Trunks: LSA (11.06 - GPS and field mapping); Survey Work: Mollenhauer Group (6/07); CAD Plans: John Cotton FAIA Architects (6/07)  
 I:\JCT0601\GIS\Figure2\_ProjectLocationMap\_OS.mxd (12/20/07)

FIGURE 2A



Photo 1 - Trunks and canopy of trees 1 - 6 from approximately 25 feet north.



Photo 2 - Trunks of trees 1 - 4 from approximately 20 feet north of the trees.

LSA

FIGURE 3

*Senior Apartments  
4803 El Canon Ave  
Oak Tree Survey  
Tree Photos*

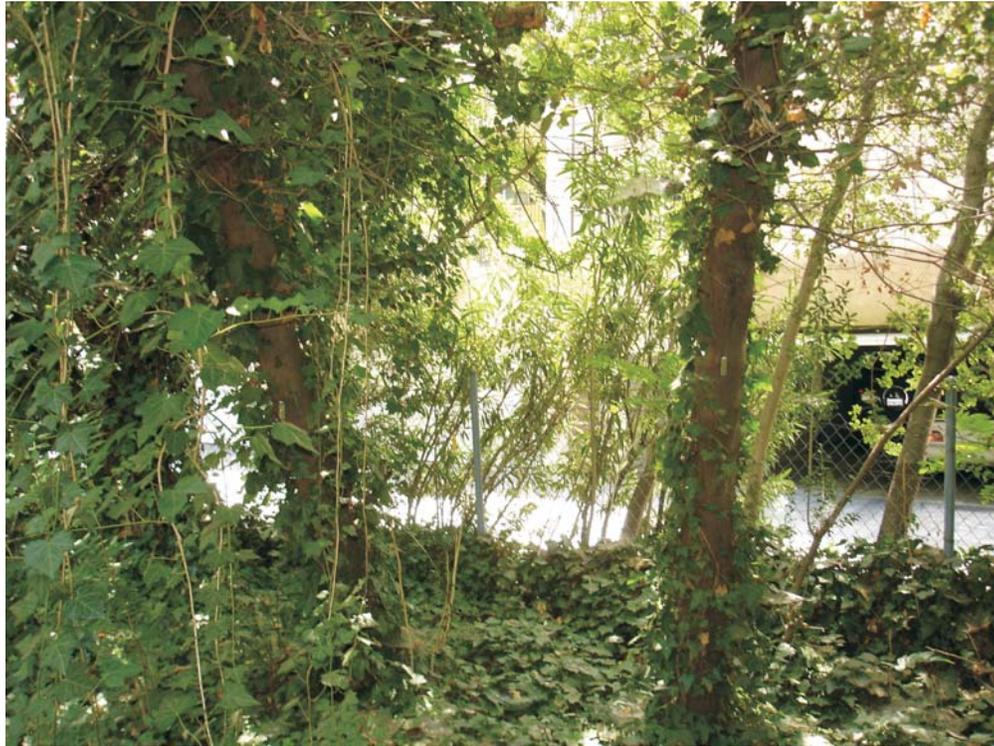


Photo 3 - Trunks of trees 5 and 6 from approximately 15 feet north.



Photo 4 - Tree 7 from 45 feet east of the tree.

LSA

FIGURE 4

*Senior Apartments  
4803 El Canon Ave  
Oak Tree Survey  
Tree Photos*



Photo 5 - Trees 8 - 10 from approximately 35 feet north of the trees.



Photo 6 - Tree 12 from 60 feet west of the tree.

LSA

FIGURE 5

*Senior Apartments  
4803 El Canon Ave  
Oak Tree Survey  
Tree Photos*

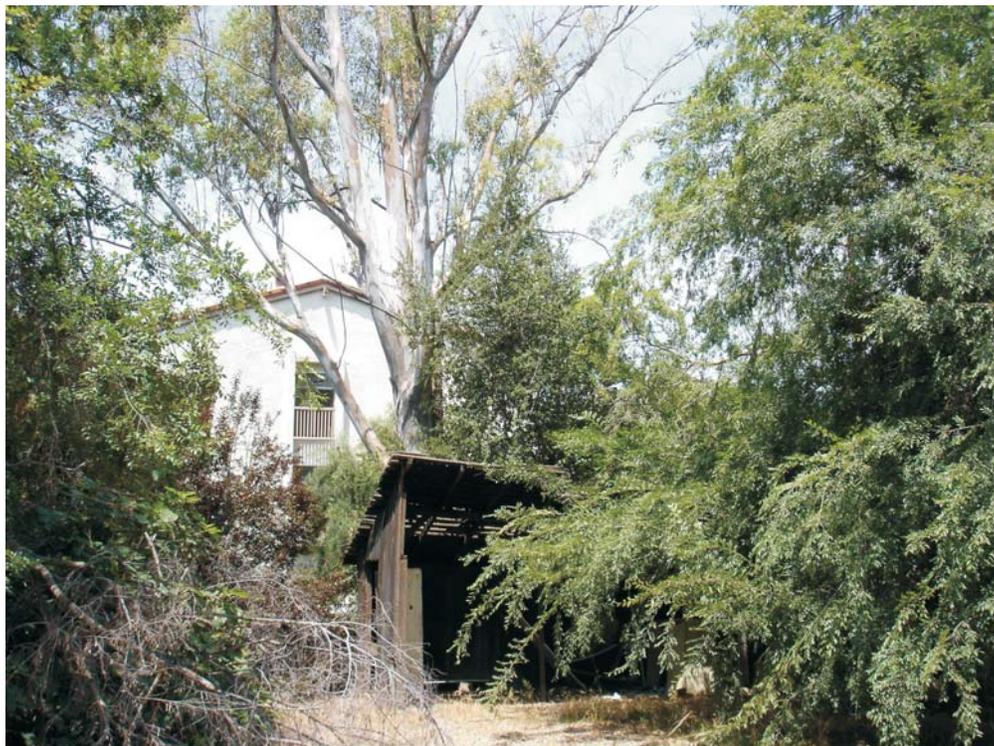


Photo 7 - Tree 14 from 50 feet east of the tree.



Photo 9 - Tree 13 from 60 feet northeast of the tree.

LSA

FIGURE 6

*Senior Apartments  
4803 El Canon Ave  
Oak Tree Survey  
Tree Photos*



Photo 8 - The trunk of tree 14 from 8 feet north of the tree.

LSA

FIGURE 7

*Senior Apartments  
4803 El Canon Ave  
Oak Tree Survey  
Tree Photos*

**TABLE A: Tree Attribute Table**

Tree Number	Species	DBH (inches)	Height (feet)	Canopy Dimensions (extension from trunk in feet)								Elevation of first branches (in feet)							
				N	NE	E	SE	S	SW	W	NW	N	NE	E	SE	S	SW	W	NW
1	<i>Quercus agrifolia</i>	2.5	30	4	3	5	4	6	7	5	2	10	10	6	8	6	10	10	10
2	<i>Quercus agrifolia</i>	4	30	21	21	12	7	7	10	10	15	10	10	10	10	8	10	10	10
3	<i>Quercus agrifolia</i>	5,2.5	35	15	18	12	7	2	4	6	15	8	8	8	8	8	8	8	8
4	<i>Quercus agrifolia</i>	3.5	35	3	3	7	10	10	9	5	3	14	14	14	14	14	14	14	14
5	<i>Quercus agrifolia</i>	7.5	40	10	10	6	6	8	8	10	9	7	7	7	7	7	7	7	7
6	<i>Quercus agrifolia</i>	6	39	18	6	3	0	0	10	18	12	12	12	12	12	12	12	12	12
7	<i>Quercus agrifolia</i>	11,10	28	9	6	15	15	21	24	30	18	9	9	9	9	9	9	9	9
8	<i>Quercus agrifolia</i>	5.5	36	9	17	21	17	14	11	3	6	12	12	12	12	12	12	12	12
9	<i>Quercus agrifolia</i>	9.5	30	2	8	15	20	24	16	8	2	8	8	8	8	8	8	8	8
10	<i>Quercus agrifolia</i>	4.5	30	1	9	15	12	12	7	3	3	12	12	12	12	12	12	12	12
11	<i>Quercus agrifolia</i>	1.5	9	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3
12	<i>Quercus agrifolia</i>	7,3,4	20	12	1	3	1	12	18	21	12	3	3	none	none	8	8	8	none
13	<i>Quercus agrifolia</i>	28	53	24	24	21	24	28	15	24	30	20	20	8	12	10	10	10	20
14	<i>Quercus agrifolia</i>	5.5, 5.5	34	12	11	10	11	12	11	12	10	5	5	5	5	5	5	5	5

**NOTES**

Tree Number	
1	
2	
3	
4	
5	
6	
7	Canopy very unevenly distributed to the west and southwest. Growth form is poor due to adjacent ornamental trees and a chicken coop. Canopy 40–85% dense.
8	Trunk adjacent to chainlink fence. Leaning badly. Trunk forms an approximately 60 degree angle with the ground. Majority of canopy is overhanging adjacent to the parking lot to the south and east. North and west quadrant lack canopy. 50–80% shade on south and east.
9	Trunk adjacent to chainlink fence. Majority of canopy is overhanging adjacent to the parking lot to the south and east. North half lacks canopy. 40–60% shade on south half.
10	Adjacent to chainlink fence. Fence is wired to the tree. Canopy is leaning far to the east of the trunk. East half of canopy 50–75% shaded.
11	Less than 2 inch DBH.
12	Since the initial data collection for this report, tree 12 failed in heavy winds and will not require permits or mitigation.
13	Very large spreading oak. Canopy density: N-70, NE-80, E-80, SE-80, S-45, SW-45, W-40, NW-70.
14	Between existing shed and fence. Canopy density: approximately 50%.

<b>TABLE B: Production Replacement Cost (PRC) Value Table</b>				
Tree Number	Species	DBH (inches)	PRC Calculations	PRC Value
7	<i>Quercus agrifolia</i>	11,10	$(\$4,700 + \$2,700(21-7))(0.1)(0.80)$	\$3,400
13	<i>Quercus agrifolia</i>	28	$(\$4,700 + \$2,700(28-7))(0.1)(0.95)$	\$5,833