# Appendix C2

Arborist Report

#### PROTECTED TREE REPORT for the Meadows at Bailey Canyon Project City of Sierra Madre, California

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# Acronyms and Abbreviations

Acronym/Abbreviation	Definition
City	City of Sierra Madre
ISA	International Society of Arboriculture
project	The Meadows at Bailey Canyon Project



## 1 Introduction

This protected tree report provides an inventory and evaluation of the protected trees located on the proposed The Meadows at Bailey Canyon (project). The project site is located in the City of Sierra Madre, California (Figure 1, Project Location). As such, this protected tree report covers the regulations and requirements for the protection and removal of protected trees within the jurisdiction of the City of Sierra Madre (City).

NUWI Sierra Madre LLC retained Dudek to conduct a tree inventory and assessment for the project site. A Dudek International Society of Arboriculture (ISA)-Certified Arborist performed various functions associated with surveying, inventorying, and evaluating the condition of all trees located within the project site to meet the requirements of the City of Sierra Madre Municipal Code, Chapter 12.20, Tree Preservation and Protection.

The purpose of this protected tree report is to present the physical characteristics and mapped locations of the site's protected trees that are to be removed or protected in place during the proposed grading and construction-related activities. This protected tree report addresses protected and non-protected oak trees on the project site.

#### 1.1 Project Location

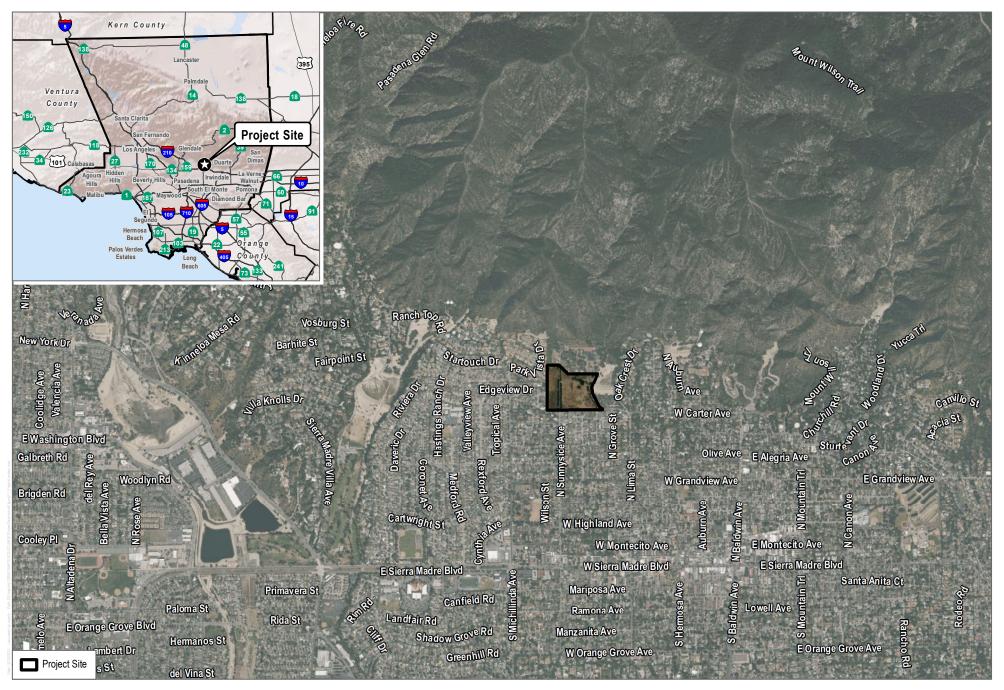
The project site is located in the City of Sierra Madre, in the foothills of the San Gabriel Mountains in Los Angeles County. The project site lies just east of the City of Pasadena and north of the City of Arcadia. The project is located on a southerly 17.39 acres of the Congregation of the Passion, Mater Dolorosa Community, 700 N. Sunnyside Avenue, Sierra Madre, CA 91024

#### 1.2 Site Characteristics

The project site is located within the Congregation of the Passion, Mater Dolorosa Community, which has residential areas to the west and south, a large retention basin to the east, and the foothills of the San Gabriel Mountains to the north. The proposed project area is located in the southern portion of the Center is separated from the foothills by buildings and landscaped areas.

#### 1.3 Project Description

The proposed project will develop approximately the lower 17.30 acres of property with a residential development of 42 detached single-family dwellings, a 3.045-acre dedicated neighborhood park, and dedication of approximately 35 acres of open space to the City of Sierra Madre.



SOURCE: County of Los Angeles 2020; Bing Maps

FIGURE 1
Project Location



## 2 Methods

#### 2.1 Individual Tree Evaluation

Dudek mapped tree locations for all trees located on the project site. Tree mapping was conducted using a Trimble Pathfinder Pro XH GPS receiver with H-Star Technology. Since tree canopies can sometimes cause loss of satellite lock by blocking the line-of-sight to satellites, an electronic compass and reflectorless, electronic distance-measuring device were also used in mapping tree locations. The reflectorless, electronic distance-measuring device/compass combination operates in concert with the Pathfinder system to position offsets, and offset information is automatically attached to the GPS position data string. The electronic tree locations were then evaluated using ArcView 10.4 software to determine the position of the trees related to the project development footprint.

All inventoried and assessed protected trees were tagged with an aluminum tag bearing a unique identification number, which was placed on the trunk of each tree. These numbers correspond to the tree attribute information presented in the Tree Information Matrix in Appendix A. Tree trunk diameters were measured using a diameter tape providing adjusted figures¹ for diameter measurements when wrapping the tape around an object's circumference. Diameter measurements were taken using protocol provided by the Council of Tree and Landscape Appraisers in the Guide for Plant Appraisal (ISA 2000). The trunk diameter measurement of each tree was taken at 4.5 feet above the ground along the trunk axis, with common exceptions. For example, in cases where a tree's trunk was located on a slope, the 4.5-foot distance was approximated as the average of the shortest and longest sides of the trunk (i.e., the uphill side and downhill side of a tree's trunk, respectively), and the measurement was made at this point. Tree height was visually estimated by experienced tree surveyors. Tree canopy diameters were typically estimated by "pacing-off" the measurement based on the investigator's knowledge of their stride length or by visually estimating the canopy width. The crown diameter measurements were made along an imaginary line intersecting the tree trunk that best approximated the average canopy diameter. Additionally, Dudek arborists calculated composite trunk diameters for multiple-stem trees according to ISA standards. According to these standards, the sum of all stem diameters was calculated to ascertain composite trunk diameter values for multiple-stem trees.

Pursuant to the Guide for Plant Appraisal (ISA 2000), tree health and structure were evaluated with respect to five distinct tree components: roots, trunk, scaffold branches, small branches, and foliage. Each component of the tree was assessed with regard to health factors such as insect and pathogen damage, mechanical damage, presence of decay, presence of wilted or dead leaves, and wound closure. Tree health and structure were graded as good, fair, poor, and dead, with "good" representing no apparent problems, and "dead" representing a dying and/or dead tree. Good condition trees exhibit acceptable vigor, healthy foliage, and adequate structure, and lack any major maladies. Fair condition trees are typically those with few maladies but declining vigor. This method of tree condition rating is comprehensive and results in ratings that are useful for determining the status of trees based on common urban forestry standards.

Individual tree attribute data is presented in Appendix A, Tree Information Matrix, and tree locations are presented in Appendix B, Tree Location Exhibit. Representative protected tree photographs are presented in Appendix C.

Inches divided by 3.14 ( $\pi$ ) provide diameter measurement in inches.



12730

#### 2.2 Tree Impact Analysis

Dudek's ISA-certified arborists determined tree impacts by conducting a spatial analysis of individual tree locations and canopy extents visible in project site aerial imagery in relation to the proposed development plan. The tree dataset, digital aerial imagery, and site development planning data were evaluated using GIS software to determine where individual trees were located in relation to proposed development areas. Per the City Tree Preservation and Protection Ordinance, the root zone of a tree is considered the circular area surrounding the trunk with a radius fifteen times the trunk diameter or the area between the dripline and the trunk, whichever is greater. The tree impact analysis reflects the arborists understanding of the site grading and construction impacts at the time of this report.

#### 2.3 Scope of Work Limitations

No root crown excavations or investigations, internal probing, or aerial canopy inspections were performed during the tree assessments. Therefore, the presence or absence of internal decay or other hidden or inaccessible inferiorities in individual trees could not be confirmed. It is recommended that any large tree proposed for preservation or relocation in an urban setting be thoroughly inspected for internal or subterranean decay by a qualified arborist before finalizing preservation or relocation plans.

## 3 Observations

#### 3.1 Individual Trees

101 trees were inventoried within the biological study area including ten coast live oak (*Quercus agrifolia*) trees. All 10 of the oak trees meet the City's criteria for a protected oak tree. Appendix B presents the location of the individual trees mapped and assessed for the proposed project. Overall, the trees exhibit growth and structural conditions that are typical of their location in an undeveloped urban landscape. The trees include various trunk and branch maladies and health and structural conditions. As presented in Appendix A, 29% of the individually mapped trees (29 trees) exhibit good health; 48% (48 trees) are in fair health; and 24% (24 trees) are in poor health. Structurally, 6% (6 trees) of the individually mapped trees are considered to exhibit good structure, and 77% (77 trees) exhibit fair structure; and 18% (18 trees) have poor structure. The trees in good condition exhibit acceptable vigor, healthy foliage, and adequate structure, and lack any major maladies. Trees in fair condition are typical, with few maladies but declining vigor. Trees in poor condition exhibit declining vigor, unhealthy foliage, poor branch structure, and excessive lean. No pests or pathogens were observed on site.

Trees within the biological study area vary in size and stature according to species and available growing space. The site's trees are composed of single- and multi-stemmed trees, with single-stemmed trunk diameters that range from 2 to 44 inches, and multi-stemmed trunk diameters that range from 4 to 76 inches. Tree heights vary from 8 to 55 feet. Tree canopy extents range from 5 feet to approximately 70 feet.



# 4 Regulatory Definitions and Requirements

A tree inventory and assessment of the project site was performed pursuant to the City of Sierra Madre Tree Preservation and Protection Ordinance. The following is an outline of the key aspects of the ordinance.

#### 4.1 Definitions

#### 4.1.1 City of Sierra Madre Tree Preservation and Protection

Trees subject to City permit requirements include those defined by Title 12.20.020, as follows:

'Protected tree' means any legacy tree as defined herein, any tree planted on city-owned property, including parkways, or California Scrub Oak (Quercus berberidifolia), Coast Live Oak (Quercus agrifolia), Coastal Scrub Oak (Quercus dumosa), Engelmann Oak (Quercus engelmannii), Southern California Black Walnut (Juglans californica), or Western Sycamore (Platanus racemosa) or other tree species as added from time to time by city council resolution whose trunk exceeds a diameter of four inches as measured at four and one-half feet above natural or established grade.

#### 4.2 Regulations

#### 4.2.1 City of Sierra Madre Tree Preservation and Protection

The City adopted the ordinance to "contribute to a better public understanding of the value of the city's trees and to prohibit indiscriminate damage and destruction of this significant resource."

Under the City Ordinance:

A. It is unlawful for any person, firm or corporation to remove, damage, or trim substantially any protected tree (as defined herein) on private property without the written consent (permit) of the director of public works. There shall be no fee charged the applicant for this permit, provided the action being taken on the tree is not associated with development/construction related impacts.

B. In the event that a property owner applies for a building permit for a property from which a protected tree has been removed in the prior twelve months, the property owner shall provide mitigation for the removal of the tree in the form of replacement trees in accordance with the mitigation guidelines described in Section 12.20.040(C).

C. In the event that a property owner has been found to have removed a protected tree without a permit the property owner shall provide mitigation for the removal of the tree in the form of replacement trees in accordance with the mitigation guidelines described in Section 12.20.040(C), and the commission may recommend to the planning commission that approval of building permit application or other development entitlement application be prohibited for up to five years. In determining whether to



impose such a five-year prohibition, the planning commission shall consider whether the tree violation appears to be in furtherance of development, as evidenced in the extent of damage, removal, damage to the root system, and/or excessive trimming of trees within the buildable area of a property; oral or written admissions or repeated actions taken in spite of prior warnings; notices of violations; and the number and size of the damaged and/or removed trees.

#### 4.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (1918) requires tree removal and potentially disturbing construction activities to occur during certain time periods to avoid harassment of nesting birds. According to this act, no construction or other disturbing activities can occur within 300 feet of an active bird nest (500 feet for listed species) from February to September each year. Biological surveys should be conducted to provide clearance for project initiation.

# 5 Impacts

Tree impacts were determined using GIS software and spatial locations of trees relative to the project's impact areas (development footprint). Impacts were further determined based on Dudek's experience with native and non-native trees and their typical reactions to root disturbances from construction activities, such as soil compaction, excavation, and grading. The impact analysis results presented herein were used for developing appropriate mitigation measures for the proposed project.

Impacts to trees can be classified as direct or indirect. Direct impacts to trees related to site development are typically the result of physical injuries or changes caused by machinery involved with the development process. Direct impacts include tree removal, root damage, soil excavation and compaction, grade changes, loss of canopy, and trunk wounds, among others. Indirect impacts to trees are the result of changes to the site that may cause tree decline, even when the tree is not directly injured. Indirect impacts include alterations to stream flow rates, diversion of groundwater flow, introduction of exotic plant species, and alterations to disturbance regimes. Wider-scale alterations to the area near trees, as well as specific changes that occur around the trees, are important considerations.

In general, there is a great deal of variation in tolerance to construction impacts among tree species, ages, and conditions. It is important to know how a certain tree, based on its species, age, and condition, would respond to different types of disturbance. The trees on the project site are of varying ages and conditions. Mature specimens are typically more sensitive to root disturbance and grade changes. In general, healthy trees will respond better to changes in their growing environment. Trees of poor health or stressed conditions may not be vigorous enough to cope with direct or indirect impacts from construction activities.

Impact totals presented are based on conceptual disturbance limits and development plans as of the date of this tree report. As such, the actual number of trees subject to direct and indirect impacts may change as the detailed site planning process proceeds. Actual tree impact numbers may be lower than anticipated and as presented in this tree report once detailed grading plans are developed. Measures to reduce impacts are encouraged and would be implemented in the field during grading operations. Following completion of construction-related disturbances, actual protected tree impact totals would be updated and provided, along with revised mitigation totals.

#### 5.1 Direct Tree Impacts

For the purposes of this tree report, direct impacts are those associated with tree removal or encroachment within the tree-protected zone defined by the City as, the circular area surrounding the trunk with a radius fifteen times the trunk diameter or the area between the dripline and the trunk, whichever is greater. Tree removal is expected to be required when the trunk is located inside or within 2 feet of the proposed limits of grading. Encroachment is expected when soil and roots are disturbed within the tree protected zone. Table 1 summarizes the number of trees by species that are expected to be directly impacted by construction. Direct tree impacts would result in the removal of 10 protected trees and an additional 91 non-protected tree. The locations of impacted trees are presented in the Tree Location Exhibit in Appendix B.

Table 1. Summary of Direct Tree Impacts

Species	Protected T	rees	Non-Protected Trees			
Scientific Name	Common Name	Trees to Remove	Impacted but Not Removed	Trees to Remove	Impacted but Not Removed	
Eucalyptus cladocalyx	Sugar gum	0	0	4	0	
Ficus macrophylla	Morten Bay fig	0	0	10	0	
Jacaranda mimosafolia	Jacaranda	0	0	29	0	
Juniperus chinensis 'Torulosa'	Hollywood juniper	0	0	4	0	
Olea europaea	Fruitless olive	0	0	1	0	
Quercus agrifolia	Coast live oak	10	0	1	0	
Quercus ilex	Holly oak	0	0	2	0	
Quercus virginiana	Southern live oak	0	0	1	0	
Sambucus canadensis	American elderberry	0	0	1	0	
Schinus molle	Peruvian pepper	0	0	1	0	
Syzgium australe	Brush cherry	0	0	2	0	
Ulmus parvifolia	Chinese elm	0	0	35	0	
	Total	10	0	91	0	

#### 5.2 Indirect Tree Impacts

Indirect impacts to trees are the result of changes to the site that may cause tree decline, even when the tree is not directly injured. Site-wide changes affecting trees include diverting runoff and stormwater, creating retention and detention ponds, relocating streams or making improvements to streams, lowering or raising water tables, altering the capacity for soil moisture recharge, removing vegetation, or damming underground water flow (Matheny and Clark 1998). For the purposes of this tree report, 0 indirect tree impacts are expected for trees within 25 feet of the proposed project's development footprint.

## 5.3 Tree Impact Summary

In summary, 101 trees will be directly impacted (101 removals) by the proposed project, of which, 10 are protected trees as defined by the City Tree Preservation and Protection Ordinance. Individual tree impacts can be found in Appendix A.

# 6 Mitigation

#### 6.1 Determination of Minimum Replacement Standards

Any protected tree located on the project site that requires removal must be replaced on a 1:1 basis, with a like species, based on the City Tree Preservation and Protection Ordinance.

#### 6.2 Recommended Mitigation

The City Tree Preservation and Protection Ordinance identifies tree replacement requirements for tree removal associated with a development project. In total, 10 protected trees may be removed for this project. As such, they should be replaced on a 1:1 basis with a like species. The specific location of individual mitigation tree plantings on site would be addressed in the mitigation planting plan or landscape design plan prepared for the site. The mitigation requirement and the approved tree replacement mitigation ratio is at the discretion of the City and subject to a final tree impact analysis. As such, the final tree numbers associated with tree replacement and other mitigation components may vary from that presented in this tree inventory and assessment.

Dudek recommends all mitigation tree plantings be subject to a 5-year monitoring effort by an independent third-party certified arborist. This monitoring effort would consider growth, health, and condition of the subject trees to evaluate success. The monitoring effort may result in a recommendation of remedial actions should any of the tree plantings exhibit poor or declining health.

#### 7 Tree Protection Measures

All trees on the site are expected to be removed. As such, tree protection measures are not required or recommended. However, if a tree is preserved on site, the tree must be protected according to the tree protection measures discussed in the City Tree Preservation and Protection Ordinance, as follows:

#### Tree Preservation and Protection Ordinance, 12.20.110 - Permit Procedure

- D. Construction shall not be done in a manner which negatively affects the growth or health potential of a tree required to be preserved. To improve the chances for long term survival of such trees, the following protection standards shall apply:
- 1. All cut, fill and/or building foundations shall be located at least three times the affected tree's diameter from the outside edge of the trunk of any tree scheduled for preservation and/or from any tree on adjacent properties, unless, because of the species affected, a lesser distance is adequate, as may be determined by the tree expert. No material stockpiling, storage, placement of excavated soils or other changes in grade shall occur within the dripline of any tree, either temporarily, during construction or permanently.
- 2. All trees scheduled for preservation shall have the ground area surrounding the trunk, for which areas maintenance and protection is necessary during construction for the purpose of tree preservation, conspicuously designated by durable semi-permanent means. Such area shall be located outside the tree's dripline, if possible, and shall be designated prior to the start of construction. In no event shall the outer limits of the designated area be located closer than five feet from the outside edge of the trunk unless a lesser distance is determined adequate by the tree expert. Designated areas shall not be used for vehicle parking, shall be maintained in a natural condition, and not compacted.
- 3. In order to avoid unnecessary damage to the root system of trees, the applicant will be required to submit a utility trenching pathway plan to the department of public works for review and approval prior to issuance of a building permit. The plan must depict all systems to be placed below ground including but not limited to the following systems: storm and runoff drains; sewers; gas lines; electrical, cable television and telephone lines; and water mains. Additionally, the plan must show all lateral lines serving the proposed construction and any proposed irrigation system. The plan must include trees accurately located on the project site as well as an accurate plotting of their root zones. The plan should be developed considering the following guidelines:
  - o a. The trenching pathway plan should avoid the root zone of any protected tree.
  - b. In cases where alternative routes are not available, tunneling under roots shall be used for all underground lines such as utility and drain lines in order to preserve roots two inches or larger in diameter. All tunneling shall be performed under the onsite supervision of the tree expert.
  - c. Wherever possible underground lines shall be combined in the fewest possible trenches.
  - d. Where it is possible to avoid some encroachment into root zones, the design must minimize the extent of such encroachment. The tree expert may require that these

- encroachments and mitigation measures be documented in a supplemental report prepared by an arborist.
- 4. No more than one third of the root feeding zone of oak trees scheduled for preservation may be allowed to be damaged by new development, unless it can be demonstrated by an arborist, to the satisfaction of the city, that a greater area of the root feeding zone can be involved without damaging the tree.
- 5. Root feeding zone damage to other species shall be as allowed by the city tree expert. The
  tree advisory commission shall request technical assistance to determine standards for other
  tree species common to Sierra Madre, such report to be made available to the public at City
  Hall and the city library.
- 6. All approved construction work within the root zone of trees scheduled for preservation shall observe the following minimum tree protection practices:
  - a. Hand trenching shall be done at point of grade cuts closest to the trunk to expose the location of major roots, i.e., two inches in diameter or larger. Major roots shall be cut only with permission of the tree expert. In cases where rock or unusually dense soil prevents hand trenching, mechanical equipment may be approved; provided, that work inside the dripline is closely supervised by the city tree expert to prevent tearing or other damage to major roots.
  - o b. Where root cutting is permitted, exposed major roots shall be cut with a saw. Major roots shall not be ripped by construction equipment.
  - c. Absorbent tarp or heavy cloth fabric shall be placed over new grade cuts and secured by stakes. Two to four inches of compost or woodchip mulch shall be spread over the tarp to prevent soil moisture loss. The organic covering material and tarp shall be thoroughly wetted twice per week to insure constant moisture levels until backfilling occurs.
  - o d. Trimming of branches shall be done with a saw, cut clean and performed according to standards of the International Society of Arboriculture. No tree sealant shall be used on cuts.
  - e. Decks located above the root zone of trees scheduled for preservation shall be of post and beam construction to reduce the need for root pruning or removal.
  - f. On grade patios or paving that cover more than one third of the root feeding zone of oak trees shall be constructed of permeable materials that allow aeration and water penetration.
  - g. Planting and weed control beneath trees scheduled for preservation shall take into consideration the watering requirements of such trees, so as to prevent damage from over or under watering or other adverse effects on the health of the trees. Planting beneath native oak trees should be of special concern and should generally be avoided. (Installing lawn or other plantings that requires frequent watering insure a slow death for oak trees due to their sensitivity to over watering and susceptibility to oak root fungus.)

## 8 Conclusion

The project site contains 101 trees, of which 10 are protected by the City. Based on site and grading plans at the time of this report, it is expected that 10 protected trees will require removal. As such, the 10 protected trees that are proposed for removal must be replaced on a 1:1 basis, with a like species to meet the requirements of the City Tree Preservation and Protection Ordinance. The mitigation requirement and the approved tree replacement mitigation ratio is at the discretion of the City and subject to a final tree impact analysis. This protected tree report recommends that any remaining protected tree be subject to the protection measures outlined in the City Ordinance that, when implemented, minimize the possibility that the trees are inadvertently damaged during the construction process.

## 9 Arborist's Disclosure Statement

This oak tree report provides conclusions and recommendations based only on a visual examination of the trees and surrounding site by an ISA-certified arborist and reasonable reliance on the completeness and accuracy of the information provided to the arborist. The examination did not include subterranean or internal examination of the trees.

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 them. Although trees provide many benefits to those who live near them, they also include inherent risks from breakage or failure that can be minimized but not eliminated.

Arborists cannot detect every condition that could possibly lead to the failure of a tree. Trees are living organisms subject to attack by disease, insects, fungi, weather, and other forces of nature, and conditions that lead to failure are often hidden within trees and belowground. There are some inherent risks with trees that cannot be predicted with any degree of certainty, even by a skilled and experienced arborist. Arborists cannot predict acts of nature, including, without limitation, storms of sufficient strength, which can cause an apparently healthy tree to fail. Additionally, arborists cannot guarantee that a tree will be healthy or safe under all circumstances or for any specific period of time. A tree's condition could change over a short or long period of time due to climatic, cultural, and/or environmental conditions. Further, there is no guaranty or certainty that recommendations or efforts to correct unsafe conditions will prevent future breakage or failure of a tree.

To live or work near trees is to accept some degree of risk. Neither the author of this oak tree report nor Dudek assume any responsibility for or will be liable for any claims, losses, or damages for damage to any tree, death or injury to any person, or any loss of or damage to any personal or real property.

# 10 References

ISA (International Society of Arboriculture). 2000. *Guide for Plant Appraisal*. 9th edition. Council of Tree and Landscape Appraisers.

Matheny, N., and J.R. Clark. 1998. *Trees and Development: A Technical Guide to Preservation of Trees During Land Development*. International Society of Arboriculture. June 1, 1998.



# Appendix A

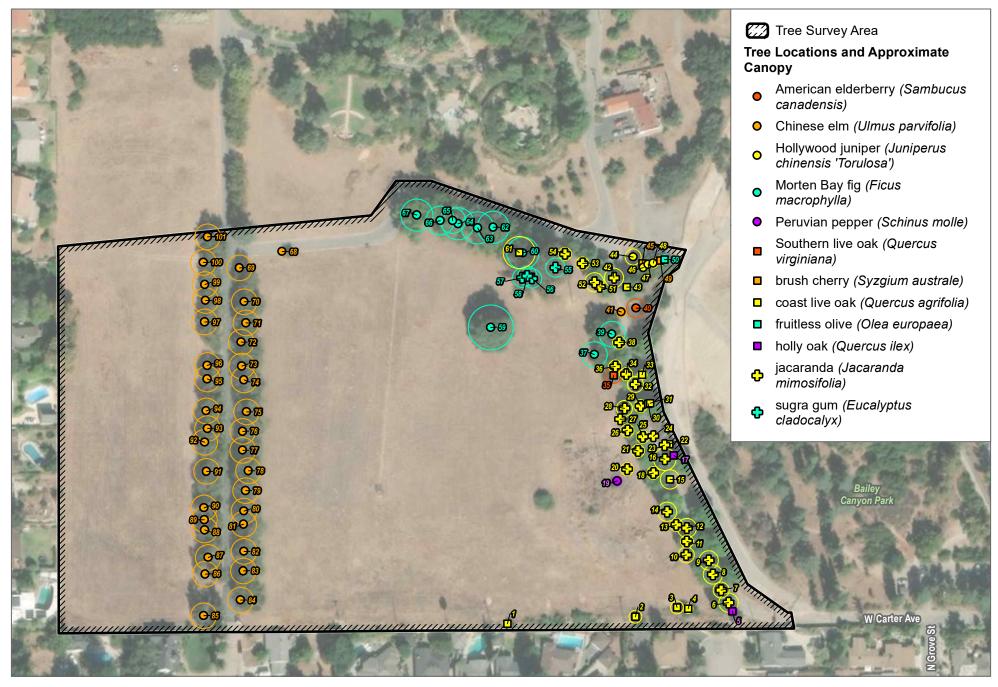
Tree Information Matrix

	Appendix A - Tree Information Matrix																	
Tree No.	Botanical Name	Common Name	Impact	DBH (Inches)	Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Height (Feet)	Width (Feet)	Health	Structure	Protected	Notes	Latitutde	Longitude
1	Quercus agrifolia	coast live oak	Removal	8	1	8	0	0	0	0	20	12	Fair	Fair	Yes			-118.0633
2	Quercus agrifolia	coast live oak	Removal	33	5	8	7	6	6	6	25	20	Good	Fair	Yes		34.17087	-118.0627
3	Quercus agrifolia	coast live oak	Removal	26	3	9	9	8	0	0	25	20	Good	Fair	Yes		34.17091	-118.0624
5	Quercus agrifolia	coast live oak	Removal	12 13	2	6 7	6	0	0	0	15 20	15 15	Fair Fair	Fair	Yes No		34.1709 34.17089	-118.0624 -118.0622
6	Quercus ilex Jacaranda mimosifolia	holly oak jacaranda	Removal Removal	22	1	22	0	0	0	0	30	30	Poor	Poor Fair	No		34.17089	-118.0622
7	Jacaranda mimosifolia	jacaranda	Removal	16	1	16	0	0	0	0	35	25	Fair	Fair	No		34.17098	-118.0622
- 8	Jacaranda mimosifolia	jacaranda	Removal	19	1	19	0	0	0	0	30	30	Poor	Fair	No		34.17105	-118.0623
9	Jacaranda mimosifolia	jacaranda	Removal	25	2	13	12	0	0	0	35	30	Fair	Fair	No		34.17111	-118.0623
10	Jacaranda mimosifolia	jacaranda	Removal	27	2	14	13	0	0	0	30	25	Poor	Poor	No		34.17113	-118.0624
11	Jacaranda mimosifolia	jacaranda	Removal	15	1	15	0	0	0	0	25	20	Poor	Poor	No		34.17119	-118.0624
12	Jacaranda mimosifolia	jacaranda	Removal	29	2	16	13	0	0	0	35	30	Poor	Poor	No		34.17125	-118.0624
13	Jacaranda mimosifolia	jacaranda	Removal	16	1	16	0	0	0	0	25	20	Poor	Poor	No		34.17126	-118.0624
14	Jacaranda mimosifolia	jacaranda	Removal	20	1	20	0	0	0	0	30	30	Poor	Fair	No		34.17132	-118.0625
15	Quercus agrifolia	coast live oak	Removal	12	1	12	0	0	0	0	25	30	Fair	Fair	Yes		34.17146	-118.0625
16	Jacaranda mimosafolia	jacaranda	Removal	19	1	19	0	0	0	0	40	35	Fair	Fair	No		34.17154	-118.0625
17	Quercus ilex	holly oak	Removal	4	1	4	0	0	0	0	15	10	Fair	Fair	No		34.17156	-118.0625
18	Jacaranda mimosifolia	jacaranda	Removal	18	1	18	0	0	0	0	25	20	Poor	Fair	No	ļ	34.17148	-118.0626
19	Schinus molle	Peruvian pepper	Removal	9	3	3	3	3	0	0	12	15	Fair	Poor	No		34.17145	-118.0627
20	Jacaranda mimosifolia	jacaranda	Removal	16	1	16	0	0	0	0	30	20	Poor	Fair	No	1	34.1715	-118.0627
21	Jacaranda mimosifolia	jacaranda	Removal	14	1	14	0	0	0	0	30	20	Poor	Fair	No	1	34.17158	-118.0626
22	Quercus agrifolia Jacaranda mimosifolia	coast live oak	Removal	3	1	3	0	0	0	0	8 15	<u>6</u>	Fair Fair	Fair Poor	No No		34.17161 34.1716	-118.0625 -118.0625
23		jacaranda	Removal	4	3	2	1	1	0	0	10	8			No No		34.17164	-118.0625
25	Jacaranda mimosifolia Jacaranda mimosifolia	jacaranda jacaranda	Removal Removal	14	1	14	0	0	0	0	25	20	Fair Poor	Poor Fair	No		34.17164	-118.0626
26	Jacaranda mimosifolia	jacaranda	Removal	16	1	16	0	0	0	0	25	20	Poor	Fair	No		34.17164	-118.0626
27	Jacaranda mimosifolia	jacaranda	Removal	9	1	9	0	0	0	0	20	15	Poor	Fair	No		34.17172	-118.0627
28	Jacaranda mimosifolia	jacaranda	Removal	22	2	11	11	0	0	0	20	25	Poor	Fair	No		34.17176	-118.0627
29	Jacaranda mimosifolia	iacaranda	Removal	15	1	15	0	0	0	0	30	20	Fair	Fair	No		34.17177	-118.0626
30	Quercus agrifolia	coast live oak	Removal	6	1	6	0	0	0	0	20	10	Fair	Fair	Yes		34.17178	-118.0626
31	Quercus agrifolia	coast live oak	Removal	8	1	8	0	0	0	0	20	10	Fair	Fair	Yes		34.17178	-118.0626
32	Jacaranda mimosifolia	jacaranda	Removal	15	1	15	0	0	0	0	30	25	Fair	Fair	No		34.17187	-118.0627
33	Quercus agrifolia	coast live oak	Removal	9	1	9	0	0	0	0	15	15	Fair	Fair	Yes		34.17191	-118.0626
34	Jacaranda mimosifolia	jacaranda	Removal	14	1	14	0	0	0	0	35	20	Poor	Fair	No		34.17191	-118.0627
35	Quercus virginiana	Southern live oak	Removal	25	2	13	12	0	0	0	20	25	Fair	Fair	No		34.1719	-118.0628
36	Jacaranda mimosifolia	jacaranda	Removal	15	1	15	0	0	0	0	25	20	Poor	Poor	No		34.17194	-118.0628
37	Ficus macrophylla	Morten Bay fig	Removal	51	5	14	13	11	7	6	30	40	Fair	Fair	No		34.17199	-118.0629
38	Jacaranda mimosifolia	jacaranda	Removal	14	1	14	0	0	0	0	30	20	Poor	Fair	No		34.17205	-118.0627
39	Ficus macrophylla	Morten Bay fig	Removal	20	1	20	0	0	0	0	30	40	Fair	Fair	No		34.17208	-118.0628
40	Sambucus canadensis	American elderberry	Removal	27	2	17	10	0	0	0	20	30	Good	Fair	No		34.17219	-118.0626
41	Ulmus parvifolia	Chinese elm	Removal	4	3	2	1	1	0	0	10	15	Fair	Fair	No		34.17218	-118.0627
42	Jacaranda mimosifolia	jacaranda coast live oak	Removal Removal	20 4	2	20	2	0	0	0	40 12	30 8	Fair Fair	Fair Fair	No Yes		34.17232 34.17228	-118.0628 -118.0627
43	Quercus agrifolia Juniperus chinensis 'Torulosa'			34	4	12	9	7	6	0	30	25	Fair	Fair		1	34.17228	-118.0627
44	Syzgium australe	Hollywood juniper brush cherry	Removal Removal	6	1	6	0	0	0	0	35	10	Fair	Poor	No No	1	34.17241	-118.0627
46	Juniperus chinensis 'Torulosa'	Hollywood juniper	Removal	8	1	8	0	0	0	0	30	10	Fair	Poor	No		34.17237	-118.0626
47	Juniperus chinensis 'Torulosa'	Hollywood juniper	Removal	15	2	9	6	0	0	0	35	10	Fair	Poor	No	1	34.17237	-118.0626
48	Juniperus chinensis 'Torulosa'	Hollywood juniper	Removal	20	3	11	5	4	0	0	35	15	Fair	Poor	No	1	34.17239	-118.0626
49	Syzgium australe	brush cherry	Removal	10	1	10	0	0	0	0	25	15	Fair	Fair	No	Ì	34.1724	-118.0625
50	Olea europaea	fruitless olive	Removal	14	5	4	3	3	2	2	20	15	Fair	Poor	No		34.1724	-118.0625
51	Jacaranda mimosifolia	jacaranda	Removal	14	1	14	0	0	0	0	15	15	Poor	Fair	No		34.17228	-118.0628
52	Jacaranda mimosifolia	jacaranda	Removal	21	1	21	0	0	0	0	30	30	Poor	Fair	No		34.1723	-118.0629
53	Jacaranda mimosifolia	jacaranda	Removal	19	1	19	0	0	0	0	25	20	Poor	Fair	No		34.17238	-118.0629
54	Jacaranda mimosifolia	jacaranda	Removal	15	2	8	7	0	0	0	20	20	Poor	Fair	No		34.17243	-118.063
55	Eucalyptus cladocalyx	sugra gum	Removal	70	5	26	20	8	8	8	55	30	Fair	Fair	No		34.17237	-118.0631
56	Eucalyptus cladocalyx	sugra gum	Removal	76	4	28	18	16	14	0	55	30	Fair	Fair	No		34.17232	-118.0632
57	Eucalyptus cladocalyx	sugra gum	Removal	53	6	24	8	7	7	7	55	30	Fair	Fair	No	Stem of 6"	34.17232	-118.0632
58	Eucalyptus cladocalyx	sugra gum	Removal	32	1	32	0	0	0	0	55	30	Fair	Fair	No	ļ	34.17233	-118.0632
59	Ficus macrophylla	Morten Bay fig	Removal	32	1	32	0	0	0	0	50	70	Good	Good	No		34.17211	-118.0634
60	Ficus macrophylla	Morten Bay fig	Removal	44	1	44	0	0	0	0	45	50	Fair	Fair	No		34.17243	-118.0632
61	Quercus agrifolia	coast live oak	Removal	54	2	36	18	0	0	0	40	50	Good	Fair	Yes	1	34.17243	-118.0633
62	Ficus macrophylla	Morten Bay fig	Removal	63	4	19	18	13	13	0	50	50	Fair	Fair	No		34.17254	-118.0634

63	Ficus macrophylla	Morten Bay fig	Removal	43	1	43	0	0	0	0	50	50	Fair	Fair	No		34.17254	-118.0635
64	Ficus macrophylla	Morten Bay fig	Removal	46	3	19	17	10	0	0	50	50	Poor	Fair	No		34.17255	-118.0636
65	Ficus macrophylla	Morten Bay fig	Removal	40	3	19	11	10	0	0	35	40	Poor	Poor	No		34.17257	-118.0636
66		, ,	Removal	75	5	22	19	14	10	10	50	45	Poor	Poor	No		34.17257	-118.0637
	Ficus macrophylla Ficus macrophylla	Morten Bay fig		67	-	20	20			0		50					34.17257	
67		Morten Bay fig	Removal		4			16	11		50		Fair	Poor	No			-118.0638
68	Ulmus parvifolia	Chinese elm	Removal	12	10	4	3	2	2	1	12	12	Fair	Poor	No	stump sprout	34.17243	-118.0645
69	Ulmus parvifolia	Chinese elm	Removal	18	1	18	0	0	0	0	40	40	Good	Fair	No		34.17236	-118.0647
70	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Fair	No		34.17222	-118.0647
71	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Good	Fair	No		34.17213	-118.0647
72	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Good	Fair	No		34.17204	-118.0647
73	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Fair	No		34.17194	-118.0647
74	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Good	Fair	No		34.17188	-118.0647
75	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Fair	No		34.17175	-118.0647
76	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Good	Fair	No		34.17166	-118.0647
77	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Good	No		34.17158	-118.0647
78	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Good	No		34.17149	-118.0647
79	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Good	Good	No		34.17141	-118.0647
80	Ulmus parvifolia	Chinese elm	Removal	18	1	18	0	0	0	0	40	40	Good	Good	No		34.17132	-118.0647
81	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Good	Good	No		34.17126	-118.0647
82	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Good	Fair	No		34.17115	-118.0647
83	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Fair	No		34.17106	-118.0647
84	Ulmus parvifolia	Chinese elm	Removal	21	1	21	0	0	0	0	40	40	Good	Fair	No		34.17094	-118.0647
85	Ulmus parvifolia	Chinese elm	Removal	20	1	20	0	0	0	0	40	40	Good	Fair	No		34.17087	-118.0649
86	Ulmus parvifolia	Chinese elm	Removal	16	1	16	0	0	0	0	40	40	Good	Fair	No		34.17105	-118.0649
87	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Good	Fair	No		34.17112	-118.0649
88	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Fair	No		34.17124	-118.0649
89	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Fair	No		34.17128	-118.0649
90	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Fair	No		34.17133	-118.0649
91	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Good	Fair	No		34.17149	-118.0649
92	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Good	Fair	No	1	34.17162	-118.0649
93	Ulmus parvifolia	Chinese elm	Removal	16	1	16	0	0	0	0	40	40	Fair	Fair	No	1	34.17167	-118.0649
94	Ulmus parvifolia	Chinese elm	Removal	19	1	19	0	0	0	0	40	40	Fair	Fair	No		34.17175	-118.0649
95	Ulmus parvifolia	Chinese elm	Removal	16	1	16	0	0	0	0	40	40	Fair	Fair	No		34.17189	-118.0649
96	Ulmus parvifolia	Chinese elm	Removal	15	1	15	0	0	0	0	40	40	Fair	Fair	No	İ	34.17194	-118.0649
97	Ulmus parvifolia	Chinese elm	Removal	15	1	15	0	0	0	0	40	40	Fair	Fair	No	İ	34.17213	-118.0649
98	Ulmus parvifolia	Chinese elm	Removal	14	1	14	0	0	0	0	40	40	Fair	Fair	No	Ì	34.17222	-118.0649
99	Ulmus parvifolia	Chinese elm	Removal	15	1	15	0	0	0	0	40	40	Fair	Fair	No	<b>†</b>	34.17229	-118.0649
100	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Fair	Fair	No	1	34.17239	-118.0649
101	Ulmus parvifolia	Chinese elm	Removal	17	1	17	0	0	0	0	40	40	Fair	Fair	No	1	34.1725	-118.0649

# Appendix B

Tree Location Exhibit



SOURCE: Esri and Digital Globe 2019

# Appendix C

Representative Site Photographs

# Appendix C Photograph Log



**Photo 1**. Representative site photograph facing north.



**Photo 2**. Representative site photograph facing west.



**Photo 3**. Representative site photograph of trees lining the driveway on the east side of property.



**Photo 4**. Representative site photograph of trees lining the driveway on the west side of property.



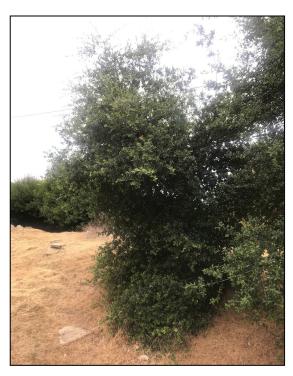
**Photo 5**. Photograph of protected coast live oak tree #1.



**Photo 6**. Photograph of protected coast live oak tree #2.



**Photo 7**. Photograph of protected coast live oak tree #3.



**Photo 8**. Photograph of protected coast live oak tree #4.



**Photo 9**. Photograph of protected coast live oak tree #15.



**Photo 10**. Photograph of protected coast live oak trees #30 and #31.



**Photo 11**. Photograph of protected coast live oak tree #33.



**Photo 12**. Photograph of protected coast live oak tree #43.



**Photo 13**. Representative photograph of protected coast live oak tree #61.