APPENDIX 4.5

Vascular Plant Species List, Arborist Report and Focused Plant Surveys

Vascular Plant Species List

Appendix 4.5(A)
Vascular Plants occurring on the project site

Scientific Name	Common Name
Quercus agrifolia	Coast live oak
Heteromeles arbutifolia	Toyon
Juglans californica	California black walnut
Eucalyptus sp.	Eucalyptus
Bromus diandrus	Brome
Avena sp.	Wild Oats
Toxicodendron diversilobum	Poison Oak
Marrubium vulgare	Horehound
Marah macrocarpus	Wild cucumber
Malva neglecta	Cheeseweed
Rumex crispus	Curly dock
Hirschfeldia incana	Mustard
Carduus pycnocephalus	Italian thistle
Lactuca sp.	Prickly lettuce
Rubus ursinus	Wild blackberry
Foeniculum vulgare	Fennel
Amaranth albus	Pigweed
Conyza sp.	Horseweed
Salix sp.	Willow
Sambucus mexicana	Blue elderberry

Arborist Report

Arborist Report, Tentative Tract #52717
In the City of San Dimas

SUMMARY:

238 trees have been included in the Arbor Report for this site. 25 of these trees that meet the criteria for size, condition and structure/aesthetic quality stand within the boundaries of proposed grading and road construction and must be removed. An additional 8 trees that meet the criteria for size, condition and structural/aesthetic quality stand close enough to proposed grade changes that they may be injured. Adjustments willbe required in order to insure the survival of these trees.

CONCEPT:

I have been requested to examine all trees that qualify for protection on the property known as tentative tract #52717 with regard to suitability for preservation in any future landscape that might be created on this site, and to prepare a report which describes my findings. The city of San Dimas defines protected trees as those with a minimum trunk diameter of 8 inches at 36 inches from grade if it is an oak or 10 inches for other species, or if having multiple trunks, a total diameter of at least 10 inches if the largest single trunk has a minimum diameter of 10 inches. The purpose of this study was to identify those trees that are strong enough physiologically and have sufficient aesthetic and structural quality to justify preservation.

PROCEDURE:

The site was surveyed prior to the beginning of this study. The location of qualifying trees has been located on a plan of the area. On the plan submitted with this report those trees which fall within a planned roadway, building pad or grade change has been identified by using light lines to outline the tree's crown. As part of the current study each significant tree was marked with an embossed aluminum tag bearing a unique number. The same number was placed on the plot plan to indicate the location of each qualifying tree. A small number of trees that do not meet the minimum size requirement have been tagged and tabulated only because they appear on the plot plan. As each tree was tagged, information on its characteristics was recorded. This information was then used to compile Tables 1., 2. and 3. attached to this report. The information recorded is as follows. Diameter of the trunk was measured with a diameter tape at 3 feet above average grade unless otherwise noted in the tables. The only reason for using another height for measurement was to avoid a character such as a bulge or branch point that would have exaggerated the tree's size. For multiple-trunked trees the diameter of each trunk is listed with each diameter separated by a slash. Canopy spread and height was estimated in 5-foot increments. When a canopy was irregular, the largest dimension was used. The condition of the crown was assessed on a 5-point scale based on the physiological health of the tree. A rating of 1 is given for a full, healthy crown with normal shoot growth during the current season and good leaf color. A rating of 2 was given for a tree that showed less shoot growth than expected for the

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healthiest of trees and for which the crown was thinner and the leaves less well colored than the best trees of the species. Such trees are still healthy but could be stronger. Trees that score 1 and 2 for condition are in excellent or good health and have an indefinite life span ahead. These should be able to tolerate some unavoidable stresses caused by construction and grading operations or by relocation if necessary. A rating of 3 was given to trees that have significant twiggy deadwood in the outer crown areas, little shoot growth and poor color. These are trees in early to moderate decline. A rating of 4 was given to trees with dieback of heavy wood in the crown accompanied by epicormic sprouting. These are trees that have been in decline for some time and that are showing severe damage. A rating of 5 was given to trees that are dead or nearly dead. Trees which have been rated 3 or higher are not suitable candidates for any effort that requires changes in the grading plans nor should they be considered for relocation.

A second rating on a 5-point scale was given on the basis of visual appearance (aesthetics) and on structural condition. Trees with a rating of 1 are structurally stable and have a crown that is typical of the species when growing in the open where there is adequate room for full development. A rating of 2 was given to trees with minor structural problems not regarded as sufficient to threaten crown failure, or some degree of crown distortion that is considered minor. A rating of 3, 4 or 5 indicates a tree with progressively more severe crown distortion such that they would not make acceptable landscape specimens or have such severe structural problems that they are likely to fail in the future. The higher the rating, the more likely it is that the tree's structure will fail. Thus trees rated 3 or higher for structure/appearance are not acceptable landscape specimens and are not suitable candidates for any effort that requires changing the grading plans nor should they be considered for relocation. In the event a tree with a structural defect resulting in a score of 3 happens to be located in what will be an occupied landscape, it should be removed even if grading and construction plans do not require it. For each tree with a rating of 3 or higher for condition or for structure/appearance, comments have been entered which describe the specific problem or problems noted.

In four cases, the trees were surrounded by such thick stands of poison oak that they were unapproachable. In these cases, the trees were not tagged and the diameter of the trunk was estimated. Since the lower trunk was not examined, there is no entry for structure/appearance for these trees. All such trees are located in areas that are not to be disturbed by grading.

RESULTS AND RECOMMENDATIONS:

The Oak trees are in generally good physiological condition. Although the Eucalyptus trees are generally in good condition, several individuals are in decline probably due to lack of summer irrigation and attack by the Eucalyptus longhorned beetle, a species that attacks drought stressed trees.

A total of 238 trees have been entered on the site map. Of these, 120 qualifying trees scored well enough for condition and for appearance/structure to justify preservation. This number includes trees that were not rated for structure/appearance due to poison oak encroachment. Table 2. lists by species the number of acceptable trees and their proposed disposition.

The following are explanations of three common structural problems that resulted in scores of 3 or higher for structure/appearance:

1 Co-dominant trunks: Branches that are distinctly smaller than the trunk on which they are borne are referred to as subordinate branches. Branches and trunks that approach equal diameter are considered to be codominant structure. In comparison to subordinate branches, codominant branches are considerably weaker. The closer the branches are to being equal in diameter, the greater the probability that the tree will failure. This structural problem is increased when the codominant branches meet at an acute angle and include bark between them as they expand. Such structure is dangerous and there is considerable liability when such trees are retained in an occupied landscape.

2. Suppressed and distorted: In the densely planted *Eucalyptus* groves the larger trees have largely overshadowed the smaller trees. Though they remain relatively healthy physiologically, many have been stunted and have failed to develop normal crowns. Growth has been in any direction these trees could find light. Consequently, as individuals, the smaller, suppressed trees would not be attractive landscape specimens.

3. Shrubby: Such trees have many trunks and many low branches, none of which dominate and form a distinct structure characteristic of a tree. The character of shrubby specimens does not lend them to be acceptable for use in a landscape.

Many of the larger Eucalyptus on the site have lost large branches. The Redgum, *Eucalyptus camaldulensis*, which is the most common Eucalyptus species on the site, is known to be involved in summer branch drop, which is the most likely cause of the breakage I observed. Summer branch drop is the sudden shedding of apparently healthy branches in still weather. This is a very dangerous condition, and one that causes more personal injuries than any other type of branch failure. It is so dangerous because it occurs when people are attracted to be under trees rather than seeking shelter from poor weather. Trees that show a history of summer branch drop should not be retained in heavily occupied landscapes. The occurrence of major limb breakage is noted in the "comments" column of Table 1.

49 trees on the site have been identified to be within proposed roadways, pads or areas requiring grading and therefore must be removed. Of these, 25 trees are large enough to qualify as significant trees and have scored 2 or less for condition and for structure/appearance. An additional 14 trees are located close enough to proposed grade changes that they may be adversely impacted. Of these, 8 trees are large enough to qualify as protected trees and have scored 2 or less for condition and for structure/appearance. It is necessary to retain a minimum of half of the area under the drip line of the tree undisturbed in order to expect the trees to thrive following grading. Additionally, the grading should not be any closer than 10 feet to the trunk of the tree. Table 3. is an extract of table 1 which lists those trees that are to be removed or impacted by the proposed construction. The locations indicated on the site map for trees which were not identified by the survey are approximate and may be closer or farther from proposed grading than indicated. Thus the number of impacted trees may be slightly different from that indicated here. I suggest reexamination of those trees that stand close to grade changes and that were not identified by the original survey to determine their actual location.

LIMITING CONDITIONS:

The study of trees is not an exact science. The arborists therefore are not responsible for tree defects or soil conditions that cannot be identified by a prudent and reasonable inspection.

Respectfully presented
November 30, 1998

Frederick Roth, Ph.D.
Consulting Arborist

TABLE 1. SURVEY OF TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	TO BE RETAINED	COMMENTS
1	Quercus agrifolia	32/31/27	40	100	1	3		Armillaria damage at base, one of three trunks broken, broken cables
2	Quercus agrifolia	20	25	45	1	1		
3	Quercus agrifolia	7	15	15	1	1		
4	Eucalyptus camaldulensis	23/27	70	70	1	1		
5	Quercus agrifolia	12/12	15	25	1	1	no	West trunk girdles long ago
6	Prunus amygdalum	9	10	10	4	4	no	Severe decline
7	Quercus agrifolia	20	20	60	1	3	no	Low branching, shrubby
8	Pinus halepensis	19	30	25	2	2	no	
9	Cupressus sempervirens	9	40	5	1	1	no	
10	Cupressus sempervirens	10	35	5	1	1	no	
11	Cupressus sempervirens	11	40	5	1	1	no	
12	Quercus agrifolia	14/10	20	30	1	3	no	Low branched, srubby
13	Quercus agrifolia	10	15	25	1	2		
14	Pistacia chinensis	8 trunks<4"	10	10	1	4		Very shrubby
15	Quercus agrifolia	14	30	25	2	1		
16	Quercus agrifolia	14	30	30	1	3		Leans, pocket branches
17	Quercus agrifolia	15	30	20	2	4		Trunk injury
18	Quercus agrifolia	13	25	20	2	2		
19	Quercus agrifolia	8/6/6/4/4	20	25	2	4		Suppressed
20	Quercus agrifolia	6/6/11	20	25	1	3		Shrubby
21	Quercus agrifolia	8/8/5/5	15	20	1	3		Shrubby
22	Quercus agrifolia	14/8	20	30	1	3		Fire scars
23	Quercus agrifolia	8/8/8/5/5	20	40	2	3		Shrubby
24	Quercus agrifolia	10/11	10	30	1	5	no	Major trunk wounds
25	Jacaranda mimosifolia	9/7/12	20	45	1	3		Leans, large branch girdled by chains
26	Quercus agrifolia	7	15	15	1	2		
27	Quercus agrifolia	10	20	30	1	2		
28	Quercus agrifolia	11/12	20	40	1	1		
29	Quercus agrifolia	9/10	15	20	1	3		
30	Quercus agrifolia	12/14	20	40	1	1		
31	Quercus agrifolia	14	25	45	1	1		
32	Quercus agrifolia	19	25	40	1	1	no	
33	Quercus agrifolia	5/8	15	30	1	3	no	
34	Quercus agrifolia	13/14/10/12	25	45	1	2		Codominant trunks
35	Persea americana	12	10	10	3	5	no	Poorly pruned
36	Quercus agrifolia	13	25	35	1	1		
37	Quercus agrifolia	23 @ 2'	40	45	1	1	no	
38	Quercus agrifolia	13	45	40	2	1	no	Not mapped
39	Quercus agrifolia	13	20	35	1	3	no	Low branches, leans
40	Quercus agrifolia	6/6/6	10	2	2	4	no	Codominant trunks, shrubby
41	Quercus agrifolia	22	30	50	1	1	?	
42	Quercus agrifolia	13/9	25	25	1	4	no	Suppressed, leaning, pocket branches

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#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	TO BE RETAINED	COMMENTS
43	Quercus agrifolia	16/7/7/9	25	40	1	3	no	Low branches, shrubby, leans
44	Quercus agrifolia	7/9	20	25	1	2	?	
45	Quercus agrifolia	7	15	10	1	1	no	
46	Quercus agrifolia	17	30	30	1	1		
47	Persea americana	9/8	10	20	2	2		
48	Eucalyptus camaldulensis	36	60	40	1	2		
49	Eucalyptus camaldulensis	11/22	60	20	2	2		
50	Eucalyptus camaldulensis	42	90	45	3	3		Declining, evidence of branch breakage
51	Eucalyptus camaldulensis	14	30	30	2	4		Suppressed and distorted, fire scars
52	Eucalyptus camaldulensis	22/16/14	60	75	1	3		Evisence of large limb drop
53	Eucalyptus camaldulensis	10/7	30	20	2	3		Leans (standing dead tree adjacent)
54	Eucalyptus camaldulensis	12/5/8/6	35	20	2	1		
55	Eucalyptus camaldulensis	27/12/8	70	35	2	2		
56	Eucalyptus camaldulensis	13	35	25	1	2		
57	Eucalyptus camaldulensis	15	60	25	1	1		
58	Eucalyptus camaldulensis	13	55	35	1	2		
59	Eucalyptus camaldulensis	50	100	80	2	4		Major branch breakage
60	Eucalyptus camaldulensis	18	50	30	2	2		
61	Eucalyptus camaldulensis	14	50	25	3	2		Early decline
62	Eucalyptus camaldulensis	13	80	20	2	2		
63	Eucalyptus camaldulensis	13	30	20	4	5		Severe decline
64	Eucalyptus camaldulensis	11	25	20	3	3		Trunk injury, leans
65	Eucalyptus camaldulensis	39	70	35	3	3		Major branch breakage
66	Eucalyptus camaldulensis	15	45	15	2	4		Suppressed and distorted, major trunk injury
67	Eucalyptus camaldulensis	48	100	40	2	3		One sided due to pruning for power line clearance
68	Eucalyptus camaldulensis	15/13	15	15	1	5		Topped for power line clearance
69	Eucalyptus camaldulensis	15	25	20	2	4		Topped for power line clearance
70	Eucalyptus camaldulensis	19	60	30	1	1		
71	Eucalyptus camaldulensis	41	50	50	4	5		Major trunks have died
72	Eucalyptus camaldulensis	16	30	20	4	5		Severe decline
73	Eucalyptus camaldulensis	24	40	30	3	2		Major trunk wound
74	Eucalyptus camaldulensis	19/19	100	45	1	3		
75	Eucalyptus camaldulensis	13	-	-	5	-		Dead
76	Eucalyptus camaldulensis	13/8/9/14/14	40	40	2	3		Shrubby
77	Eucalyptus globulus	15	10	15	2	5		Breakage, dieback
78	Eucalyptus globulus	32	50	40	3	4		Dead top branches
79	Eucalyptus globulus	30	50	40	3	4		Dead top branches
80	Quercus agrifolia	14/14/14	25	35	1	3		Severe codominance, narrow branch angles
81	Quercus agrifolia	7/9/11/9/8	15	25	1	3		Shrubby
82	Quercus agrifolia	14/12	20	35	1	1		
83	Quercus agrifolia	5/10/10	10	20	2	3		Shrubby, many branches arrising from one point
84	Quercus agrifolia	13/11	15	30	1	2		

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#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	TO BE RETAINED	COMMENTS
85	Quercus agrifolia	11/9	20	20	1	2		
86	Eucalyptus camaldulensis	19/11	55	25	3	2		Branch breakage
87	Eucalyptus camaldulensis	17/16	50	25	3	1		Early decline
88	Quercus agrifolia	11	15	20	1	1		Not mapped
89	Quercus agrifolia	11	15	15	2	3		Bent trunks
90	Eucalyptus camaldulensis	15	35	15	2	1		
91	Eucalyptus camaldulensis	12/13/10/15	65	40	1	1		
92	Eucalyptus camaldulensis	9/6	35	15	3	3		Supressed
93	Eucalyptus camaldulensis	8	25	15	4	4		Major dieback
94	Eucalyptus camaldulensis	12/13	45	35	2	3		Not mapped, suppressed
95	Eucalyptus camaldulensis	35	90	75	2	2		Large deadwood throughout crown
96	Eucalyptus camaldulensis	14/12/7/8	30	30	1	3		Leans
97	Eucalyptus camaldulensis	19	70	30	1	1		
98	Eucalyptus camaldulensis	22/11	45	40	1	3	no	Pocket branching, bent trunks
99	Eucalyptus camaldulensis	22	60	40	1	2	no	
100	Quercus agrifolia	9	10	25	1	2	no	
101	Juglans californica	14/18	40	45	3	2		Early decline
102	Quercus agrifolia	7/4	20	25	2	4		Suppressed and distorted, not mapped
103	Juglans californica	8/10	20	30	3	2		Trunk injury, decay
104	Quercus agrifolia	10/6/4	20	30	1	1		
105	Quercus agrifolia	6/6/4	20	15	1	2		
106	Quercus agrifolia	11	20	15	1	1		
107	Quercus agrifolia	7/5	10	15	1	3		Leans
108	Quercus agrifolia	13/12/7/8	20	30	1	3		Suppressed and distorted
109	Quercus agrifolia	17	20	30	1	1		
110	Quercus agrifolia	15	30	30	1	5		Fallen, trunk wound, not mapped
111	Quercus agrifolia	7/7	20	20	1	4		Suppressed and distorted, not mapped
112	Quercus agrifolia	14	30	35	1	2		Not mapped
113	Quercus agrifolia	16	40	30	1	2		Not mapped
114	Quercus agrifolia	29	50	40	1	1		Not mapped
115	Quercus agrifolia	11	10	30	1	5		Trunk bent to near horizontal, not mapped
116	Quercus agrifolia	12	35	25	2	4		Suppressed and distorted, trunk injury, not mapped
117	Juglans californica	15	-	-	5	5		Nearly dead, not mapped
118	Quercus agrifolia	9/10	35	40	1	2		Not mapped
119	Quercus agrifolia	12	30	15	1	3		Suppressed and distorted
120	Quercus agrifolia	19	40	50	1	1	?	
121	Quercus agrifolia	14	40	30	1	3		Suppressed and distorted
122	Quercus agrifolia	26/16	50	70	1	3		Fire scars
123	Quercus agrifolia	~18	40	50	1	-		Not tagged - inaccessable due to poison oak colony
124	Quercus agrifolia	9/4	20	15	1	2	?	
125	Quercus agrifolia	~18	45	30	1	-		Not tagged - inaccessable due to poison oak colony
126	Quercus agrifolia	10/8	30	30	1	1		Not mapped

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#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	TO BE RETAINED	COMMENTS
127	Juglans californica	4/4/4/4/6/5	20	30	1	5		Very shrubby
128	Schinus terebinthifolius	20 trunks 4-10"	20	45	1	5		Very shrubby
129	Juglans californica	8 trunks 2-8"	10	30	2	5		Very shrubby, basal wood decay
130	Quercus agrifolia	~18	50	50	1	-		Not tagged - inaccessable due to poison oak colony
131	Quercus agrifolia	~20	50	50	1	-		Not tagged - inaccessable due to poison oak colony
132	Quercus agrifolia	18/19	70	70	1	3		Recent trunk wound, not mapped
133	Quercus agrifolia	11/17	45	70	1	3		Suppressed and distorted, not mapped
134	Quercus agrifolia	10/11	40	35	1	4		Suppressed and distorted, not mapped
135	Quercus agrifolia	23	50	60	2	3	?	Lower trunk leans
136	Quercus agrifolia	20	70	30	1	3	?	Long trunk wound
137	Quercus agrifolia	18	40	50	1	4	?	Trunk bent to near horizontal, broken trunk
138	Quercus agrifolia	14	40	30	1	1		
139	Quercus agrifolia	18	70	40	1	1		
140	Quercus agrifolia	15	70	40	1	1		
141	Quercus agrifolia	18	70	40	1	1		
142	Quercus agrifolia	19	60	60	1	2		Bent trunk
143	Quercus agrifolia	20	70	50	1	2	?	
144	Quercus agrifolia	15/16	70	50	1	1		
145	Quercus agrifolia	23	60	50	1	3		Codominant trunks, narrow crotch angle
146	Quercus agrifolia	12	50	50	2	3		Suppressed and distorted
147	Quercus agrifolia	17	70	30	2	1		
148	Quercus agrifolia	8	25	20	2	4		Suppressed and distorted, not mapped
149	Quercus agrifolia	14/6	25	25	1	3		Branches arise too close together, not mapped
150	Quercus agrifolia	18	40	50	1	1		
151	Quercus agrifolia	15/10	30	40	1	1		
152	Quercus agrifolia	12/8	20	20	1	2		
153	Juglans californica	12/5	25	25	2	3		Broken branches, not mapped
154	Quercus agrifolia	16	30	40	1	2		
155	Juglans californica	13/13/5/6/9/12	30	60	4	4		Dieback, mistletoe, shrubby
156	Quercus agrifolia	10	35	15	1	2		
157	Quercus agrifolia	15	20	40	1	5		Trunk is near horizontal
158	Juglans californica	17	35	30	3	2		Declining
159	Quercus agrifolia	6/7	20	25	1	2		
160	Quercus agrifolia	10/10	20	25	1	1		
161	Quercus agrifolia	13/19/7	50	45	1	1		
162	Quercus agrifolia	18/13/8	35	60	1	4		Trunk is bent, distorted
163	Quercus agrifolia	23	65	70	1	3		Narrow crotch angle with bark included
164	Quercus agrifolia	15	40	40	1	5		Bent to horizontal
165	Quercus agrifolia	13	40	40	1	5		Bent to horizontal
166	Quercus agrifolia	22	65	70	1	1		
167	Quercus agrifolia	30	30	60	4	4		Advanced decline, branch death
168	Quercus agrifolia	16	30	60	1	1	?	

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#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	TO BE RETAINED	COMMENTS
169	Quercus agrifolia	15	35	50	1	1		
170	Eucalyptus camaldulensis	18	60	50	1	2	no	
171	Eucalyptus camaldulensis	43	100	50	1	1	no	
172	Eucalyptus camaldulensis	32	100	70	2	1		
173	Quercus agrifolia	19	40	45	2	1	no	
174	Quercus agrifolia	15/17	25	50	2	3		Codominant trunks
175	Quercus agrifolia	10/10	20	25	2	3		Codominant trunks, narrow crotch angle with included bark
176	Eucalyptus camaldulensis	18/10	40	50	2	1		
177	Quercus agrifolia	18/13	35	60	1	1		
178	Quercus agrifolia	16	30	35	1	3	no	Suppressed and distorted, one-sided
179	Quercus agrifolia	15	40	50	1	3	no	Trunk leans
180	Quercus agrifolia	22	55	60	1	2	no	
181	Quercus agrifolia	5/13/13/12	35	50	1	2	no	
182	Quercus agrifolia	11/14/16/12/13	35	60	1	3	no	Shrubby
183	Quercus agrifolia	42 @ 18"	35	70	1	2	no	
184	Quercus agrifolia	18/19/16	35	45	1	2	?	
185	Quercus agrifolia	11/8	25	30	1	1		Not mapped
186	Quercus agrifolia	13/11	30	35	1	2		
187	Quercus agrifolia	13/10	30	25	1	2		
188	Quercus agrifolia	16/18	35	35	1	1		
189	Quercus agrifolia	31	30	60	3	4	?	Declining, branches arise too close together
190	Quercus agrifolia	10/5/5	25	20	1	3		Suppressed and distorted
191	Quercus agrifolia	12/13	25	25	1	1		
192	Quercus agrifolia	8/8	25	25	1	2		
193	Quercus agrifolia	11/4	20	20	2	3		Trunk wound
194	Quercus agrifolia	16	35	35	2	3		Codominant trunks, narrow crotch angle with included bark
195	Quercus agrifolia	10/8	30	35	2	2		
196	Quercus agrifolia	15	25	30	1	1		
197	Quercus agrifolia	18	20	35	1	2		
198	Sambucus mexicanus	-	-	-	-	-	no	Not a protected tree species
199	Eucalyptus camaldulensis	14/14	60	30	3	3	?	Early decline, major branch breakage
200	Eucalyptus camaldulensis	18	60	30	2	1	no	
201	Eucalyptus camaldulensis	6/6/6/6/3	60	20	2	2		
202	Eucalyptus camaldulensis	12	65	20	2	2	no	
203	Eucalyptus camaldulensis	6/4	35	10	2	2	no	
204	Eucalyptus camaldulensis	14	35	35	2	4	no	Basal trunk injury
205	Eucalyptus camaldulensis	14	45	25	4	4		Major branch dieback
206	Eucalyptus camaldulensis	14/12/12/21	80	45	1	1		
207	Eucalyptus camaldulensis	12/11/7	80	30	1	1		
208	Eucalyptus camaldulensis	16/5/5/7	80	30	1	1		
209	Eucalyptus camaldulensis	19	80	40	1	1		
210	Eucalyptus camaldulensis	22/16/8/10	80	50	1	1		

TABLE 1. SURVEY OF TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	TO BE RETAINED	COMMENTS
211	Quercus agrifolia	9/6/7	15	25	1	4		Main trunk near horizontal not mapped
212	Quercus agrifolia	13/7	25	25	1	1		
213	Quercus agrifolia	12	25	25	1	1		
214	Eucalyptus globulus	20/12/12/6	65	30	3	3		Top of tree has died
215	Quercus agrifolia	12	15	20	1	1		Not mapped
216	Quercus agrifolia	13/6/6/6/3	15	25	1	3		Codominant trunks, not mapped
217	Quercus agrifolia	12/10/10/9	25	30	1	3		Codominant trunks
218	Quercus agrifolia	9/11	30	30	1	2		A nearby tree is too small to qualify for protection
219	Quercus agrifolia	13/12/9	40	35	1	1	no	
220	Quercus agrifolia	11	30	20	2	1	no	
221	Quercus agrifolia	13	25	20	2	2	no	Trunk has been slightly injured by the western sycamore borer
222	Eucalyptus camaldulensis	8/7/8	35	35	1	5		Central trunk is dead
223	Quercus agrifolia	16	30	30	1	5	no	Large patches of bark have been killed at base of trunk
224	Persea americana	-	-	-	-	-	?	No trunk larger than 4 inches - too small to qualify
225	Quercus agrifolia	8/6/4/4	15	20	1	2	?	
226	Quercus agrifolia	13	20	20	3	1	no	Heavy damage by western sycamore borer at trunk base
227	Quercus agrifolia	15	25	35	1	1		
228	Quercus agrifolia	15/5/4/4	25	40	1	3	no	Main trunk near horizontal
229	Quercus agrifolia	10/5	35	15	1	3	no	Very vertical structure, trunk wound
230	Quercus agrifolia	5/6/7	25	20	1	3	no	Codominant trunks, one-sided, suppressed
231	Eucalyptus camaldulensis	12	25	10	1	1	no	
232	Eucalyptus camaldulensis	12	55	15	1	1		
233	Eucalyptus camaldulensis	11	20	15	1	4		Bent trunk, suppressed
234	Eucalyptus camaldulensis	14	50	20	3	2	no	Trunk wound, dieback
235	Eucalyptus camaldulensis	17/14/11/15	50	50	1	5	no	Regrowth from stump, twisted and sprawling crown
236	Eucalyptus camaldulensis	21/15	50	50	1	5		Large branch breakage, sprawling crown
237	Eucalyptus camaldulensis	12	15	30	1	5		Trunk bent to near horizontal
238	Quercus agrifolia	11	15	25	1	1	no	

1. Identification numbers are the same numbers found on embossed aluminum tags fixed to the trees and entered on the survey map for the tentative tract.
2. Diameters were measured at 3 feet and in inches. Trees less than 8 inches in diameter or, if multiple trunked, having a diameter of the two largest trunks less than 10 inches are not protected trees and descriptions are not included.
3. Diameters of the height and spread were estimated in 5 foot intervals.
4. Condition is indicated on a scale of 1 to 5 with 1 being best and 5 being dead. Trees with a condition rating of 3 or more are in a state of decline and would probably not survive transplanting.
5. Structure/appearance is rated on a scale of 1 to 5 with 1 being best and 5 being poorest. Trees with a rating of 3 or higher have significant structural or aesthetic problems and should not be preserved. A description of trees with a rating of 3 or greater is entered in the "Comments" column.
6. The entry of a "no" in the "TO BE RETAINED" column indicates that a tree is to be removed according to the current grading plan. The entry of a question mark indicates that the tree stands close enough to the planned grading that there may be some injury. Some changes in the may be required to retain the tree.

TABLE 2. SPECIES FOUND ON TENTATIVE TRACT #52717 AND PROPOSED DISPOSITION

Species	Common Name	Number Recorded	Number With Good Ratings*	Number To Be Removed**	Acceptible Trees To Be Removed***	Number Impacted	Acceptible Trees to be Impacted ****
Quercus agrifolia	Coast Live Oak	148	84	30	14	12	8
Eucalyptus camaldulensi	Red Gum	66	31	11	7	1	
Juglans californica	Southern California Black Walnut	8	0				
Eucalyptus globulus	Blue Gum	4	0				
Cupressus sempervirens	Italian Cypress	3	3	3	3		
Persea americana	Avocado	3	1	2			
Pinus halepensis	Aleppo Pine	1	1	1			
Pistacia chinensis	Chinese Pistache	1	0				
Jacaranda mimosifolia	Jacaranda	1	0				
Prunus amygdalum	Apricot	1	0	1			
Sambucus mexicanus	Elderberry	1	0	1			
Schinus terebinthifolius	Brazilian Pepper	1	0				
Total		238	120	49		13	

* Qualifying trees that scored 1 or 2 for both condition and structure/appearance

** As indicated on the accompanying plot plan. Extrapolations were made for trees not appearing on the original plot plan

*** Trees scoring 1 or 2 for condition and structure/appearance which fall within the footprint of a pad, grade change or roadway

**** Trees which are close to grade changes and which may require alteration of the grading plan to remain healthy.

TABLE 3. TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS WHICH ARE TO BE REMOVED OR FOR WHICH GRADING PLANS MAY REQUIRE MODIFICATION FOR RETENTION

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	TO BE RETAIN	COMMENTS
5	Quercus agrifolia	12/12	15	25	1	1	no	West trunk girdles long ago
6	Prunus amygdalum	9	10	10	4	4	no	Severe decline
7	Quercus agrifolia	20	20	60	1	3	no	Low branching, shrubby
8	Pinus halepensis	19	30	25	2	2	no	
9	Cupressus sempervirens	9	40	5	1	1	no	
10	Cupressus sempervirens	10	35	5	1	1	no	
11	Cupressus sempervirens	11	40	5	1	1	no	
12	Quercus agrifolia	14/10	20	30	1	3	no	Low branched, srubby
24	Quercus agrifolia	10/11	10	30	1	5	no	Major trunk wounds
32	Quercus agrifolia	19	25	40	1	1	no	
33	Quercus agrifolia	5/8	15	30	1	3	no	
35	Persea americana	12	10	10	3	5	no	Poorly pruned
37	Quercus agrifolia	23 @ 2'	40	45	1	1	no	
38	Quercus agrifolia	13	45	40	2	1	no	Not mapped
39	Quercus agrifolia	13	20	35	1	3	no	Low branches, leans
40	Quercus agrifolia	6/6/6	10	2	2	4	no	Codominant trunks, shrubby
42	Quercus agrifolia	13/9	25	25	1	4	no	Suppressed, leaning, pocket branches
43	Quercus agrifolia	16/7/7/9	25	40	1	3	no	Low branches, shrubby, leans
45	Quercus agrifolia	7	15	10	1	1	no	
98	Eucalyptus camaldulensis	22/11	45	40	1	3	no	Pocket branching, bent trunks
99	Eucalyptus camaldulensis	22	60	40	1	2	no	
100	Quercus agrifolia	9	10	25	1	2	no	
170	Eucalyptus camaldulensis	18	60	50	1	2	no	
171	Eucalyptus camaldulensis	43	100	50	1	1	no	
173	Quercus agrifolia	19	40	45	2	1	no	
178	Quercus agrifolia	16	30	35	1	3	no	Suppressed and distorted, one-sided
179	Quercus agrifolia	15	40	50	1	3	no	Trunk leans
180	Quercus agrifolia	22	55	60	1	2	no	
181	Quercus agrifolia	5/13/13/1	35	50	1	2	no	
182	Quercus agrifolia	11/14/16/	35	60	1	3	no	Shrubby
183	Quercus agrifolia	42 @ 18"	35	70	1	2	no	
198	Sambucus mexicanus	-	-	-	-	-	no	Not a protected tree species
200	Eucalyptus camaldulensis	18	60	30	2	1	no	
202	Eucalyptus camaldulensis	12	65	20	2	2	no	
203	Eucalyptus camaldulensis	6/4	35	10	2	2	no	
204	Eucalyptus camaldulensis	14	35	35	2	4	no	Basal trunk injury
219	Quercus agrifolia	13/12/9	40	35	1	1	no	
220	Quercus agrifolia	11	30	20	2	1	no	
221	Quercus agrifolia	13	25	20	2	2	no	Trunk has been slightly injured by the western sycamore borer
223	Quercus agrifolia	16	30	30	1	5	no	Large patches of bark have been killed at base of trunk

TABLE 3. TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS WHICH ARE TO BE REMOVED OR FOR WHICH GRADING PLANS MAY REQUIRE MODIFICATION FOR RETENTION

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	TO BE RETAIN	COMMENTS
226	Quercus agrifolia	13	20	20	3	1	no	Heavy damage by western sycamore borer at trunk base
228	Quercus agrifolia	15/5/4/4	25	40	1	3	no	Main trunk near horizontal
229	Quercus agrifolia	10/5	35	15	1	3	no	Very vertical structure, trunk wound
230	Quercus agrifolia	5/6/7	25	20	1	3	no	Codominant trunks, one-sided, suppressed
231	Eucalyptus camaldulensis	12	25	10	1	1	no	
234	Eucalyptus camaldulensis	14	50	20	3	2	no	Trunk wound, dieback
235	Eucalyptus camaldulensis	17/14/11/	50	50	1	5	no	Regrowth from stump, twisted and sprawling crown
238	Quercus agrifolia	11	15	25	1	1	no	
41	Quercus agrifolia	22	30	50	1	1	?	
44	Quercus agrifolia	7/9	20	25	1	2	?	
120	Quercus agrifolia	19	40	50	1	1	?	
124	Quercus agrifolia	9/4	20	15	1	2	?	
135	Quercus agrifolia	23	50	60	2	3	?	Lower trunk leans
136	Quercus agrifolia	20	70	30	1	3	?	Long trunk wound
137	Quercus agrifolia	18	40	50	1	4	?	Trunk bent to near horizontal, broken trunk
143	Quercus agrifolia	20	70	50	1	2	?	
168	Quercus agrifolia	16	30	60	1	1	?	
184	Quercus agrifolia	18/19/16	35	45	1	2	?	
189	Quercus agrifolia	31	30	60	3	4	?	Declining, branches arise too close together
199	Eucalyptus camaldulensis	14/14	60	30	3	3	?	Early decline, major branch breakage
224	Persea americana	-	-	-	-	-	?	No trunk larger than 4 inches - too small to qualify
225	Quercus agrifolia	8/6/4/4	15	20	1	2	?	

1. Identification numbers are the same numbers found on embossed aluminum tags fixed to the trees and entered on the survey map for the tentative tract.
2. Diameters were measured at 3 feet and in inches. Trees less than 8 inches in diameter or, if multiple trunked, having a diameter of the two largest trunks less than 10 inches are not protected trees and descriptions are not included.
3. Diameters of the height and spread were estimated in 5 foot intervals.
4. Condition is indicated on a scale of 1 to 5 with 1 being best and 5 being dead. Trees with a condition rating of 3 or more are in a state of decline and would probably not survive transplanting.
5. Structure/appearance is rated on a scale of 1 to 5 with 1 being best and 5 being poorest. Trees with a rating of 3 or higher have significant structural or aesthetic problems and should not be preserved. A description of trees with a rating of 3 or greater is entered in the "Comments" column.
6. The entry of a "no" in the "TO BE RETAINED" column indicates that a tree is to be removed according to the current grading plan. The entry of a question mark indicates that the tree stands close enough to the planned grading that there may be some injury. Some changes in the proposed plan may be required to retain the tree.

Addendum to Arborist Report, Tentative Tract #52717
In the City of San Dimas

SUMMARY:

Because of major changes in the grading plan for Tract #52717 there have been parallel changes in the plan for removal of trees.

CONCEPT:

There has been a major revision of the grading plan which involves routing a single road through the tract. This has changed the trees that are to be impacted and necessitated a new analysis. Without going to the site, I identified the likely impaction by examination of the modified grading plan and comparing it to the location of trees on the tree preservation maps used to prepare the original report. Table 1 attached to this report is a modification of a similar table included in the original Arborist Report for Tract #52717. The only change is the addition of two columns, one noting trees to be retained in the original report and a second column noting trees to be retained in the current revision. All other tree information is unchanged. As in the original report, some trees are close to the grade changes and may require special effort to preserve in place. These trees are noted in Table 1 with a question mark. Table 2. is an extract of table 1 which lists those trees that are to be removed or impacted by the proposed construction.

RESULTS AND RECOMMENDATIONS:

The revised grading plan calls for the removal of 64 trees that are located either on pads, in roadways or on graded slopes compared to 49 in the original plan. Fifteen additional trees are located close enough to grade changes that they may be impacted over a portion of their root systems compared to 14 in the original plan. Thirty-five of the trees impacted under the current plan are of sufficiently high quality to justify preservation (scores of 2 or less for both condition and appearance). Of these, one is a species that is not protected and another is too small to qualify for protection. Nine of the trees close to grading are of sufficiently high quality to justify preservation.

Some of the trees on the tree preservation map were not located by survey. I identified the approximate location of these trees in relation to surrounding trees and other landmarks, but the location of such trees on the site map is approximate and they may be closer to or farther from proposed grade changes than indicated on the plan. These trees are indicated on the original tree preservation plan by a dot and a number only and are not surrounded by a circle. They were also noted in the comments column of Table 1. Thus the actual number of impacted trees may be slightly different from that indicated here. I suggest reexamination of such trees if they stand close to grade changes to more precisely determine if they will be significantly impacted. The

best time to make such a reevaluation would be after the grade staking is in place but before grading begins.

LIMITING CONDITIONS:

The study of trees is not an exact science. The arborists therefore are not responsible for tree defects or soil conditions that cannot be identified by a prudent and reasonable inspection.

Respectfully presented
November 18, 2000

Frederick Roth, Ph.D.
Consulting Arborist

TABLE 1. REVISED REPORT OF THE SURVEY OF TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	Original TO BE RETAINED	New TO BE RETAINED	COMMENTS
1	Quercus agrifolia	32/31/27	40	100	1	3			Armillaria damage at base, one of three trunks broken, broken cables
2	Quercus agrifolia	20	25	45	1	1		no	
3	Quercus agrifolia	7	15	15	1	1		no	
4	Eucalyptus camaldulensis	23/27	70	70	1	1		no	
5	Quercus agrifolia	12/12	15	25	1	1	no		West trunk girdled long ago
6	Prunus amygdalum	9	10	10	4	4	no	no	Severe decline
7	Quercus agrifolia	20	20	60	1	3	no	no	Low branching, shrubby
8	Pinus halepensis	19	30	25	2	2	no	no	
9	Cupressus sempervirens	9	40	5	1	1	no	no	
10	Cupressus sempervirens	10	35	5	1	1	no	no	
11	Cupressus sempervirens	11	40	5	1	1	no	no	
12	Quercus agrifolia	14/10	20	30	1	3	no	no	Low branched, srubby
13	Quercus agrifolia	10	15	25	1	2			
14	Pistacia chinensis	8 trunks<4"	10	10	1	4			Very shrubby
15	Quercus agrifolia	14	30	25	2	1			
16	Quercus agrifolia	14	30	30	1	3			Leans, pocket branches
17	Quercus agrifolia	15	30	20	2	4			Trunk injury
18	Quercus agrifolia	13	25	20	2	2			
19	Quercus agrifolia	8/6/6/4/4	20	25	2	4			Suppressed
20	Quercus agrifolia	6/6/11	20	25	1	3			Shrubby
21	Quercus agrifolia	8/8/5/5	15	20	1	3		?	Shrubby
22	Quercus agrifolia	14/8	20	30	1	3			Fire scars
23	Quercus agrifolia	8/8/8/5/5	20	40	2	3			Shrubby
24	Quercus agrifolia	10/11	10	30	1	5	no	no	Major trunk wounds
25	Jacaranda mimosifolia	9/7/12	20	45	1	3			Leans, large branch girdled by chains
26	Quercus agrifolia	7	15	15	1	2		no	
27	Quercus agrifolia	10	20	30	1	2			
28	Quercus agrifolia	11/12	20	40	1	1			
29	Quercus agrifolia	9/10	15	20	1	3		no	
30	Quercus agrifolia	12/14	20	40	1	1		no	
31	Quercus agrifolia	14	25	45	1	1		no	
32	Quercus agrifolia	19	25	40	1	1	no	no	
33	Quercus agrifolia	5/8	15	30	1	3	no	no	
34	Quercus agrifolia	13/14/10/12	25	45	1	2			Codominant trunks
35	Persea americana	12	10	10	3	5	no	no	Poorly pruned
36	Quercus agrifolia	13	25	35	1	1		no	
37	Quercus agrifolia	23 @ 2'	40	45	1	1	no	no	
38	Quercus agrifolia	13	45	40	2	1	no	no	Not mapped
39	Quercus agrifolia	13	20	35	1	3	no	no	Low branches, leans
40	Quercus agrifolia	6/6/6	10	2	2	4	no	no	Codominant trunks, shrubby
41	Quercus agrifolia	22	30	50	1	1	?	no	
42	Quercus agrifolia	13/9	25	25	1	4	no	no	Suppressed, leaning, pocket branches
43	Quercus agrifolia	16/7/7/9	25	40	1	3	no	no	Low branches, shrubby, leans
44	Quercus agrifolia	7/9	20	25	1	2	?	no	

TABLE 1. REVISED REPORT OF THE SURVEY OF TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	Original TO BE RETAINED	New TO BE RETAINED	COMMENTS
45	Quercus agrifolia	7	15	10	1	1	no		
46	Quercus agrifolia	17	30	30	1	1			
47	Persea americana	9/8	10	20	2	2			
48	Eucalyptus camaldulensis	36	60	40	1	2		no	
49	Eucalyptus camaldulensis	11/22	60	20	2	2		no	
50	Eucalyptus camaldulensis	42	90	45	3	3		no	Declining, evidence of branch breakage
51	Eucalyptus camaldulensis	14	30	30	2	4		no	Suppressed and distorted, fire scars
52	Eucalyptus camaldulensis	22/16/14	60	75	1	3		no	Evidence of large limb drop
53	Eucalyptus camaldulensis	10/7	30	20	2	3			Leans (standing dead tree adjacent)
54	Eucalyptus camaldulensis	12/5/8/6	35	20	2	1			
55	Eucalyptus camaldulensis	27/12/8	70	35	2	2			
56	Eucalyptus camaldulensis	13	35	25	1	2			
57	Eucalyptus camaldulensis	15	60	25	1	1			
58	Eucalyptus camaldulensis	13	55	35	1	2			
59	Eucalyptus camaldulensis	50	***	80	2	4			Major branch breakage
60	Eucalyptus camaldulensis	18	50	30	2	2			
61	Eucalyptus camaldulensis	14	50	25	3	2			Early decline
62	Eucalyptus camaldulensis	13	80	20	2	2			
63	Eucalyptus camaldulensis	13	30	20	4	5			Severe decline
64	Eucalyptus camaldulensis	11	25	20	3	3			Trunk injury, leans
65	Eucalyptus camaldulensis	39	70	35	3	3			Major branch breakage
66	Eucalyptus camaldulensis	15	45	15	2	4			Suppressed and distorted, major trunk injury
67	Eucalyptus camaldulensis	48	***	40	2	3			One sided due to pruning for power line clearance
68	Eucalyptus camaldulensis	15/13	15	15	1	5			Topped for power line clearance
69	Eucalyptus camaldulensis	15	25	20	2	4			Topped for power line clearance
70	Eucalyptus camaldulensis	19	60	30	1	1			
71	Eucalyptus camaldulensis	41	50	50	4	5			Major trunks have died
72	Eucalyptus camaldulensis	16	30	20	4	5			Severe decline
73	Eucalyptus camaldulensis	24	40	30	3	2			Major trunk wound
74	Eucalyptus camaldulensis	19/19	***	45	1	3			
75	Eucalyptus camaldulensis	13	-	-	5	-			Dead
76	Eucalyptus camaldulensis	13/8/9/14/14	40	40	2	3			Shrubby
77	Eucalyptus globulus	15	10	15	2	5			Breakage, dieback
78	Eucalyptus globulus	32	50	40	3	4			Dead top branches
79	Eucalyptus globulus	30	50	40	3	4			Dead top branches
80	Quercus agrifolia	14/14/14	25	35	1	3			Severe codominance, narrow branch angles
81	Quercus agrifolia	7/9/11/9/8	15	25	1	3			Shrubby
82	Quercus agrifolia	14/12	20	35	1	1			
83	Quercus agrifolia	5/10/10	10	20	2	3			Shrubby, many branches arising from one point
84	Quercus agrifolia	13/11	15	30	1	2			
85	Quercus agrifolia	11/9	20	20	1	2			
86	Eucalyptus camaldulensis	19/11	55	25	3	2			Branch breakage
87	Eucalyptus camaldulensis	17/16	50	25	3	1			Early decline
88	Quercus agrifolia	11	15	20	1	1			Not mapped

TABLE 1. REVISED REPORT OF THE SURVEY OF TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	Original TO BE RETAINED	New TO BE RETAINED	COMMENTS
89	Quercus agrifolia	11	15	15	2	3			Bent trunks
90	Eucalyptus camaldulensis	15	35	15	2	1			
91	Eucalyptus camaldulensis	12/13/10/15	65	40	1	1			
92	Eucalyptus camaldulensis	9/6	35	15	3	3			Suppressed
93	Eucalyptus camaldulensis	8	25	15	4	4			Major dieback
94	Eucalyptus camaldulensis	12/13	45	35	2	3			Not mapped, suppressed
95	Eucalyptus camaldulensis	35	90	75	2	2			Large deadwood throughout crown
96	Eucalyptus camaldulensis	14/12/7/8	30	30	1	3			Leans
97	Eucalyptus camaldulensis	19	70	30	1	1			
98	Eucalyptus camaldulensis	22/11	45	40	1	3	no		Pocket branching, bent trunks
99	Eucalyptus camaldulensis	22	60	40	1	2	no		
100	Quercus agrifolia	9	10	25	1	2	no		
101	Juglans californica	14/18	40	45	3	2			Early decline
102	Quercus agrifolia	7/4	20	25	2	4			Suppressed and distorted, not mapped
103	Juglans californica	8/10	20	30	3	2			Trunk injury, decay
104	Quercus agrifolia	10/6/4	20	30	1	1			
105	Quercus agrifolia	6/6/4	20	15	1	2			
106	Quercus agrifolia	11	20	15	1	1			
107	Quercus agrifolia	7/5	10	15	1	3			Leans
108	Quercus agrifolia	13/12/7/8	20	30	1	3			Suppressed and distorted
109	Quercus agrifolia	17	20	30	1	1			
110	Quercus agrifolia	15	30	30	1	5			Fallen, trunk wound, not mapped
111	Quercus agrifolia	7/7	20	20	1	4			Suppressed and distorted, not mapped
112	Quercus agrifolia	14	30	35	1	2			Not mapped
113	Quercus agrifolia	16	40	30	1	2			Not mapped
114	Quercus agrifolia	29	50	40	1	1		no	Not mapped
115	Quercus agrifolia	11	10	30	1	5		no	Trunk bent to near horizontal, not mapped
116	Quercus agrifolia	12	35	25	2	4		no	Suppressed and distorted, trunk injury, not mapped
117	Juglans californica	15	-	-	5	5		no	Nearly dead, not mapped
118	Quercus agrifolia	9/10	35	40	1	2			Not mapped
119	Quercus agrifolia	12	30	15	1	3			Suppressed and distorted
120	Quercus agrifolia	19	40	50	1	1	?		
121	Quercus agrifolia	14	40	30	1	3			Suppressed and distorted
122	Quercus agrifolia	26/16	50	70	1	3			Fire scars
123	Quercus agrifolia	~18	40	50	1	-			Not tagged - inaccessible due to poison oak colony
124	Quercus agrifolia	9/4	20	15	1	2	?	?	
125	Quercus agrifolia	~18	45	30	1	-		?	Not tagged - inaccessible due to poison oak colony
126	Quercus agrifolia	10/8	30	30	1	1			Not mapped
127	Juglans californica	4/4/4/4/6/5	20	30	1	5			Very shrubby
128	Schinus terebinthifolius	20 trunks 4-10"	20	45	1	5			Very shrubby
129	Juglans californica	8 trunks 2-8"	10	30	2	5			Very shrubby, basal wood decay
130	Quercus agrifolia	~18	50	50	1	-			Not tagged - inaccessible due to poison oak colony
131	Quercus agrifolia	~20	50	50	1	-			Not tagged - inaccessible due to poison oak colony
132	Quercus agrifolia	18/19	70	70	1	3			Recent trunk wound, not mapped

TABLE 1. REVISED REPORT OF THE SURVEY OF TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	Original TO BE RETAINED	New TO BE RETAINED	COMMENTS
133	Quercus agrifolia	11/17	45	70	1	3			Suppressed and distorted, not mapped
134	Quercus agrifolia	10/11	40	35	1	4			Suppressed and distorted, not mapped
135	Quercus agrifolia	23	50	60	2	3	?	?	Lower trunk leans
136	Quercus agrifolia	20	70	30	1	3	?	?	Long trunk wound
137	Quercus agrifolia	18	40	50	1	4	?	?	Trunk bent to near horizontal, broken trunk
138	Quercus agrifolia	14	40	30	1	1			
139	Quercus agrifolia	18	70	40	1	1			
140	Quercus agrifolia	15	70	40	1	1			
141	Quercus agrifolia	18	70	40	1	1			
142	Quercus agrifolia	19	60	60	1	2			Bent trunk
143	Quercus agrifolia	20	70	50	1	2	?	?	
144	Quercus agrifolia	15/16	70	50	1	1			
145	Quercus agrifolia	23	60	50	1	3			Codominant trunks, narrow crotch angle
146	Quercus agrifolia	12	50	50	2	3			Suppressed and distorted
147	Quercus agrifolia	17	70	30	2	1			
148	Quercus agrifolia	8	25	20	2	4			Suppressed and distorted, not mapped
149	Quercus agrifolia	14/6	25	25	1	3			Branches arise too close together, not mapped
150	Quercus agrifolia	18	40	50	1	1			
151	Quercus agrifolia	15/10	30	40	1	1			
152	Quercus agrifolia	12/8	20	20	1	2			
153	Juglans californica	12/5	25	25	2	3			Broken branches, not mapped
154	Quercus agrifolia	16	30	40	1	2			
155	Juglans californica	13/13/5/6/9/12	30	60	4	4			Dieback, mistletoe, shrubby
156	Quercus agrifolia	10	35	15	1	2			
157	Quercus agrifolia	15	20	40	1	5			Trunk is near horizontal
158	Juglans californica	17	35	30	3	2			Declining
159	Quercus agrifolia	6/7	20	25	1	2			
160	Quercus agrifolia	10/10	20	25	1	1			
161	Quercus agrifolia	13/19/7	50	45	1	1		no	
162	Quercus agrifolia	18/13/8	35	60	1	4			Trunk is bent, distorted
163	Quercus agrifolia	23	65	70	1	3			Narrow crotch angle with bark included
164	Quercus agrifolia	15	40	40	1	5			Bent to horizontal
165	Quercus agrifolia	13	40	40	1	5			Bent to horizontal
166	Quercus agrifolia	22	65	70	1	1			
167	Quercus agrifolia	30	30	60	4	4			Advanced decline, branch death
168	Quercus agrifolia	16	30	60	1	1	?	?	
169	Quercus agrifolia	15	35	50	1	1		?	
170	Eucalyptus camaldulensis	18	60	50	1	2	no		
171	Eucalyptus camaldulensis	43	***	50	1	1	no		
172	Eucalyptus camaldulensis	32	***	70	2	1		?	
173	Quercus agrifolia	19	40	45	2	1	no	no	
174	Quercus agrifolia	15/17	25	50	2	3		no	Codominant trunks
175	Quercus agrifolia	10/10	20	25	2	3			Codominant trunks, narrow crotch angle with included bark
176	Eucalyptus camaldulensis	18/10	40	50	2	1			

TABLE 1. REVISED REPORT OF THE SURVEY OF TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	Original TO BE RETAINED	New TO BE RETAINED	COMMENTS
177	Quercus agrifolia	18/13	35	60	1	1			
178	Quercus agrifolia	16	30	35	1	3	no	no	Suppressed and distorted, one-sided
179	Quercus agrifolia	15	40	50	1	3	no	no	Trunk leans
180	Quercus agrifolia	22	55	60	1	2	no	no	
181	Quercus agrifolia	5/13/13/12	35	50	1	2	no	no	
182	Quercus agrifolia	11/14/16/12/13	35	60	1	3	no	no	Shrubby
183	Quercus agrifolia	42 @ 18"	35	70	1	2	no	no	
184	Quercus agrifolia	18/19/16	35	45	1	2	?	no	
185	Quercus agrifolia	11/8	25	30	1	1			Not mapped
186	Quercus agrifolia	13/11	30	35	1	2			
187	Quercus agrifolia	13/10	30	25	1	2			
188	Quercus agrifolia	16/18	35	35	1	1			
189	Quercus agrifolia	31	30	60	3	4	?	?	Declining, branches arise too close together
190	Quercus agrifolia	10/5/5	25	20	1	3			Suppressed and distorted
191	Quercus agrifolia	12/13	25	25	1	1			
192	Quercus agrifolia	8/8	25	25	1	2			
193	Quercus agrifolia	11/4	20	20	2	3			Trunk wound
194	Quercus agrifolia	16	35	35	2	3			Codominant trunks, narrow crotch angle with included bark
195	Quercus agrifolia	10/8	30	35	2	2			
196	Quercus agrifolia	15	25	30	1	1		?	
197	Quercus agrifolia	18	20	35	1	2			
198	Sambucus mexicanus	-	-	-	-	-	no	no	Not a protected tree species
199	Eucalyptus camaldulensis	14/14	60	30	3	3	?		Early decline, major branch breakage
200	Eucalyptus camaldulensis	18	60	30	2	1	no		
201	Eucalyptus camaldulensis	6/6/6/6/3	60	20	2	2			
202	Eucalyptus camaldulensis	12	65	20	2	2	no		
203	Eucalyptus camaldulensis	6/4	35	10	2	2	no		
204	Eucalyptus camaldulensis	14	35	35	2	4	no		Basal trunk injury
205	Eucalyptus camaldulensis	14	45	25	4	4			Major branch dieback
206	Eucalyptus camaldulensis	14/12/12/21	60	45	1	1			
207	Eucalyptus camaldulensis	12/11/7	80	30	1	1			
208	Eucalyptus camaldulensis	16/5/5/7	80	30	1	1			
209	Eucalyptus camaldulensis	19	80	40	1	1			
210	Eucalyptus camaldulensis	22/16/8/10	80	50	1	1			
211	Quercus agrifolia	9/6/7	15	25	1	4			Main trunk near horizontal, not mapped
212	Quercus agrifolia	13/7	25	25	1	1			
213	Quercus agrifolia	12	25	25	1	1		?	
214	Eucalyptus globulus	20/12/12/6	65	30	3	3			Top of tree has died
215	Quercus agrifolia	12	15	20	1	1			Not mapped
216	Quercus agrifolia	13/6/6/6/3	15	25	1	3			Codominant trunks, not mapped
217	Quercus agrifolia	12/10/10/9	25	30	1	3			Codominant trunks
218	Quercus agrifolia	9/11	30	30	1	2			A nearby tree is too small to qualify for protection
219	Quercus agrifolia	13/12/9	40	35	1	1	no	no	
220	Quercus agrifolia	11	30	20	2	1	no	no	

TABLE 1. REVISED REPORT OF THE SURVEY OF TREES LOCATED ON TENTATIVE TRACT #52717 IN THE CITY OF SAN DIMAS

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	Original TO BE RETAINED	New TO BE RETAINED	COMMENTS
221	Quercus agrifolia	13	25	20	2	2	no	no	Trunk has been slightly injured by the western sycamore borer
222	Eucalyptus camaldulensis	8/7/8	35	35	1	5			Central trunk is dead
223	Quercus agrifolia	16	30	30	1	5	no	no	Large patches of bark have been killed at base of trunk
224	Persea americana	-	-	-	-	-	?	no	No trunk larger than 4 inches - too small to qualify
225	Quercus agrifolia	8/6/4/4	15	20	1	2	?	no	
226	Quercus agrifolia	13	20	20	3	1	no	no	Heavy damage by western sycamore borer at trunk base
227	Quercus agrifolia	15	25	35	1	1		no	
228	Quercus agrifolia	15/5/4/4	25	40	1	3	no	no	Main trunk near horizontal
229	Quercus agrifolia	10/5	35	15	1	3	no	no	Very vertical structure, trunk wound
230	Quercus agrifolia	5/6/7	25	20	1	3	no	no	Codominant trunks, one-sided, suppressed
231	Eucalyptus camaldulensis	12	25	10	1	1	no	no	
232	Eucalyptus camaldulensis	12	55	15	1	1		?	
233	Eucalyptus camaldulensis	11	20	15	1	4		?	Bent trunk, suppressed
234	Eucalyptus camaldulensis	14	50	20	3	2	no	no	Trunk wound, dieback
235	Eucalyptus camaldulensis	17/14/11/15	50	50	1	5	no	no	Regrowth from stump, twisted and sprawling crown
236	Eucalyptus camaldulensis	21/15	50	50	1	5		no	Large branch breakage, sprawling crown
237	Eucalyptus camaldulensis	12	15	30	1	5		no	Trunk bent to near horizontal
238	Quercus agrifolia	11	15	25	1	1	no	no	

1. Identification numbers are the same numbers found on embossed aluminum tags fixed to the trees and entered on the survey map for the tentative tract.
2. Diameters were measured at 3 feet and are reported in inches. Trees less than 8 inches in diameter or, if multiple trunked, having a diameter of the two largest trunks less than 10 inches are not protected trees and descriptions are not included.
3. Height and spread were estimated in 5 foot intervals.
4. Condition is indicated on a scale of 1 to 5 with 1 being best and 5 being dead. Trees with a condition rating of 3 or more are in a state of decline and would probably not survive transplanting.
5. Structure/appearance is rated on a scale of 1 to 5 with 1 being best and 5 being poorest. Trees with a rating of 3 or higher have significant structural or aesthetic problems and should not be preserved. A description of trees with a rating of 3 or greater is entered in the "Comments" column.
6. There are two columns bearing the heading "To Be Retained." The first is based on the grading plan which accompanied the arborist report and is designated "Original." The second column is based on the revised grading plan dated 7/2000. The entry of a "no" in the "TO BE RETAINED" column indicates that a tree is to be removed. The entry of a question mark indicates that the tree stands close enough to the planned grading that there may be some injury. Some changes in the proposed plan may be required to retain the tree.

#	SPECIES	DIAMETER	HT	SPREAD	COND	STRUCTURE/ APPEARANCE	Original TO BE RETAINED	New TO BE RETAINED	COMMENTS
11	Cupressus sempervirens	11	40	5	1	1	no	no	
10	Cupressus sempervirens	10	35	5	1	1	no	no	
9	Cupressus sempervirens	9	40	5	1	1	no	no	
4	Eucalyptus camaldulensis	23/27	70	70	1	1		no	
231	Eucalyptus camaldulensis	12	25	10	1	1	no	no	
232	Eucalyptus camaldulensis	12	55	15	1	1		?	
48	Eucalyptus camaldulensis	36	60	40	1	2		no	
52	Eucalyptus camaldulensis	22/16/14	60	75	1	3		no	Evidence of large limb drop
233	Eucalyptus camaldulensis	11	20	15	1	4		?	Bent trunk, suppressed
235	Eucalyptus camaldulensis	17/14/11/15	50	50	1	5	no	no	Regrowth from stump, twisted and sprawling crown
236	Eucalyptus camaldulensis	21/15	50	50	1	5		no	Large branch breakage, sprawling crown
237	Eucalyptus camaldulensis	12	15	30	1	5		no	Trunk bent to near horizontal
172	Eucalyptus camaldulensis	32	100	70	2	1		?	
49	Eucalyptus camaldulensis	11/22	60	20	2	2		no	
51	Eucalyptus camaldulensis	14	30	30	2	4		no	Suppressed and distorted, fire scars
234	Eucalyptus camaldulensis	14	50	20	3	2	no	no	Trunk wound, dieback
50	Eucalyptus camaldulensis	42	90	45	3	3		no	Declining, evidence of branch breakage
117	Juglans californica	15	-	-	5	5		no	Nearly dead, not mapped
224	Persea americana	-	-	-	-	-	?	no	No trunk larger than 4 inches - too small to qualify
35	Persea americana	12	10	10	3	5	no	no	Poorly pruned
8	Pinus halepensis	19	30	25	2	2	no	no	
6	Prunus amygdalum	9	10	10	4	4	no	no	Severe decline
125	Quercus agrifolia	~18	45	30	1	-		?	Not tagged - inaccessible due to poison oak colony
31	Quercus agrifolia	14	25	45	1	1		no	
219	Quercus agrifolia	13/12/9	40	35	1	1	no	no	
32	Quercus agrifolia	19	25	40	1	1	no	no	
41	Quercus agrifolia	22	30	50	1	1	?	no	
37	Quercus agrifolia	23 @ 2'	40	45	1	1	no	no	
36	Quercus agrifolia	13	25	35	1	1		no	
2	Quercus agrifolia	20	25	45	1	1		no	
3	Quercus agrifolia	7	15	15	1	1		no	
168	Quercus agrifolia	16	30	60	1	1	?	?	
196	Quercus agrifolia	15	25	30	1	1		?	
213	Quercus agrifolia	12	25	25	1	1		?	
169	Quercus agrifolia	15	35	50	1	1		?	
114	Quercus agrifolia	29	50	40	1	1		no	Not mapped
30	Quercus agrifolia	12/14	20	40	1	1		no	
238	Quercus agrifolia	11	15	25	1	1	no	no	
161	Quercus agrifolia	13/19/7	50	45	1	1		no	
227	Quercus agrifolia	15	25	35	1	1		no	
124	Quercus agrifolia	9/4	20	15	1	2	?	?	
225	Quercus agrifolia	8/6/4/4	15	20	1	2	?	no	
183	Quercus agrifolia	42 @ 18"	35	70	1	2	no	no	
26	Quercus agrifolia	7	15	15	1	2		no	

TABLE 2. LIST OF TREES THAT ARE AFFECTED BY THE NEW GRADING PLAN SORTED BY SPECIES AND CONDITION/STRUCTURE.

#	SPECIES	DIAMETER	HT	SPREAD	COND.	STRUCTURE/ APPEARANCE	Original TO BE RETAINED	New TO BE RETAINED	COMMENTS
184	Quercus agrifolia	18/19/16	35	45	1	2	?	no	
143	Quercus agrifolia	20	70	50	1	2	?	?	
181	Quercus agrifolia	5/13/13/12	35	50	1	2	no	no	
180	Quercus agrifolia	22	55	60	1	2	no	no	
44	Quercus agrifolia	7/9	20	25	1	2	?	no	
178	Quercus agrifolia	16	30	35	1	3	no	no	Suppressed and distorted, one-sided
182	Quercus agrifolia	11/14/16/12	35	60	1	3	no	no	Shrubby
179	Quercus agrifolia	15	40	50	1	3	no	no	Trunk leans
12	Quercus agrifolia	14/10	20	30	1	3	no	no	Low branched, shrubby
29	Quercus agrifolia	9/10	15	20	1	3		no	
7	Quercus agrifolia	20	20	60	1	3	no	no	Low branching, shrubby
21	Quercus agrifolia	8/8/5/5	15	20	1	3		?	Shrubby
136	Quercus agrifolia	20	70	30	1	3	?	?	Long trunk wound
33	Quercus agrifolia	5/8	15	30	1	3	no	no	
229	Quercus agrifolia	10/5	35	15	1	3	no	no	Very vertical structure, trunk wound
228	Quercus agrifolia	15/5/4/4	25	40	1	3	no	no	Main trunk near horizontal
43	Quercus agrifolia	16/7/7/9	25	40	1	3	no	no	Low branches, shrubby, leans
39	Quercus agrifolia	13	20	35	1	3	no	no	Low branches, leans
230	Quercus agrifolia	5/6/7	25	20	1	3	no	no	Codominant trunks, one-sided, suppressed
137	Quercus agrifolia	18	40	50	1	4	?	?	Trunk bent to near horizontal, broken trunk
42	Quercus agrifolia	13/9	25	25	1	4	no	no	Suppressed, leaning, pocket branches
115	Quercus agrifolia	11	10	30	1	5		no	Trunk bent to near horizontal, not mapped
24	Quercus agrifolia	10/11	10	30	1	5	no	no	Major trunk wounds
223	Quercus agrifolia	16	30	30	1	5	no	no	Large patches of bark have been killed at base of trunk
38	Quercus agrifolia	13	45	40	2	1	no	no	Not mapped
220	Quercus agrifolia	11	30	20	2	1	no	no	
173	Quercus agrifolia	19	40	45	2	1	no	no	
221	Quercus agrifolia	13	25	20	2	2	no	no	Trunk has been slightly injured by the western sycamore borer
135	Quercus agrifolia	23	50	60	2	3	?	?	Lower trunk leans
174	Quercus agrifolia	15/17	25	50	2	3		no	Codominant trunks
116	Quercus agrifolia	12	35	25	2	4		no	Suppressed and distorted, trunk injury, not mapped
40	Quercus agrifolia	6/6/6	10	2	2	4	no	no	Codominant trunks, shrubby
226	Quercus agrifolia	13	20	20	3	1	no	no	Heavy damage by western sycamore borer at trunk base
189	Quercus agrifolia	31	30	60	3	4	?	?	Declining, branches arise too close together
198	Sambucus mexicanus	-	-	-	-	-	no	no	Not a protected tree species

Focused Plant Surveys

IMPACT SCIENCES

30343 Canwood Street, Suite 210
Agoura Hills, California 91301
Telephone (818) 879-1100 FAX (818) 879-1440
impsci@impactsciences.com

June 5, 2002

Mr. Craig Hensley
City of San Dimas
245 East Bonita Avenue
San Dimas, CA 91773

SUBJECT: Focused Plant Surveys for the Walnut Creek Project; San Dimas, Los Angeles County, California

Dear Mr. Hensley,

Thank you for the opportunity to provide the City of San Dimas with biological services. An Impact Sciences' botanist and field assistant conducted a focused plant survey for the Walnut Creek Project located in San Dimas, in the county of Los Angeles.

INTRODUCTION

Impact Sciences conducted a focused plant survey for Tentative Tract Map 52717 on May 28, 2002. The eighteen-acre site is located at the southern end of Valley Center Avenue along Gainsborough Road (**Figure 1**). Photographs of on-site conditions are provided in **Figures 2 and 3**.

This report provides the City of San Dimas with focused biological information regarding habitat suitability and presence or absence of sensitive plant species, with particular concern for thread-leaved brodiaea (*Brodiaea filifolia*) on the project site. It is important to note, however, that not finding a sensitive plant species during this year's growing season, with significantly less rainfall than normal, may not provide sufficient evidence of a plant's absence as deemed acceptable by the regulatory agencies. The majority of the project site has been impacted by disking within the last year, which may or may not adversely affect sensitive plant species.

METHODS

Literature Search

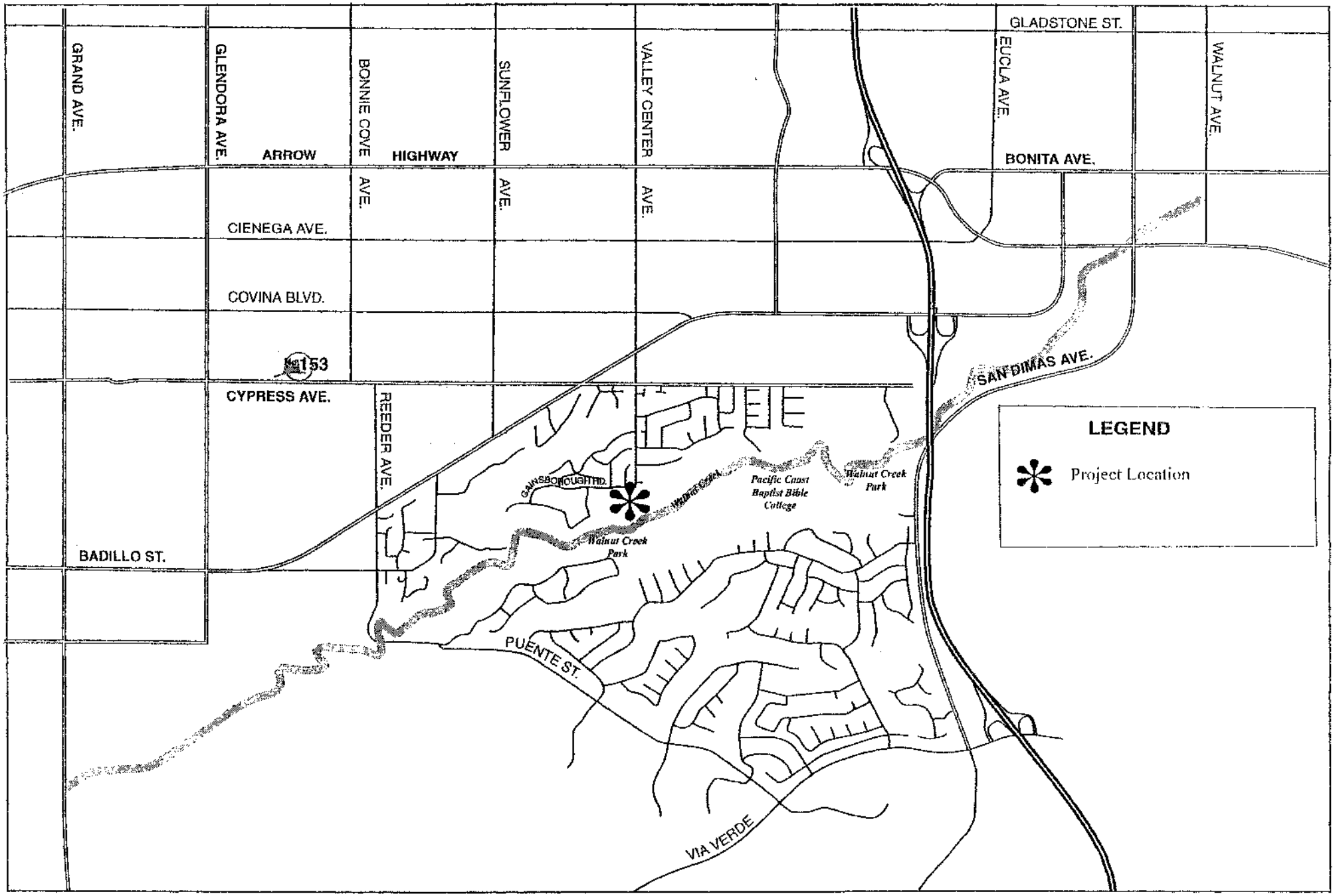

FIGURE 1

Project Location

578-01•02/02

TTM 52717 Environmental Impact Report

FIGURE 2 Eastern portion of project site.

FIGURE 3 Western portion of project site.

In order to identify special-status plant and animal species (those species considered rare, threatened, endangered, or otherwise sensitive by various state and federal resource agencies) known to occur in the vicinity of the site, the May 2002 update of the California Natural Diversity Data Base (CNDDB) and the 2002 California Native Plant Society (CNPS) electronic data base, for the San Dimas, and surrounding Baldwin Park, Ontario, Glendora, Azusa, Mount Baldy, Prado Dam, Yorba Linda, and La Habra, California USGS 7.5-minute quadrangle maps were reviewed. Plant names are taken from the following sources: J.C. Hickman, (1993), and McAuley (1996).

SITE DESCRIPTION

Topography

Topography on the site is steep to gently sloping. Elevation within the site ranges from approximately 640 feet to about 730 feet above sea level. The majority of the northern portion of the site is a steep drop-off from the adjacent road (Gainsborough Road) that flattens into a gentle slope, sloping off abruptly again adjacent the creek.

Soils

Sedimentary bedrock of the Puente Formation underlies the area. These rocks consist of well bedded, diatomaceous siltstone. The siltstone is unconformable, overlain in some areas by recent alluvium, older alluvium and/or terrace deposits. Older alluvium, generally 2 to 4 feet thick, consisting of silty sand overlies bedrock on the gently sloping terraces in the west central and east central sections of the site. Trace deposits of sandy gravel and boulders overlie the bedrock in the northern section of the site (Leighton and Associates 1980).

Vegetation

Vegetation within the project area is limited to coast live oak woodland, southern coast live oak riparian forest, tree windrows, non-native weedy species in disturbed (ruderal) areas, and landscaping associated with existing residential development. Though not included within the site boundaries, the predominant biological feature associated with the project area is Walnut Creek, which borders the southern edge of the site. The plant community associated with the creek is southern coast live oak riparian forest, which is fenced off from the site by a six-foot chain link fence. The majority of the site is highly impacted by several dirt roads that appear to be used by off-road vehicles, and parts of the southeastern portion of the

site have been impacted due to the site being used as a dumping area for refuse. The western portion of the site includes residential development, and the areas surrounding the development have been disked, presumably for annual fuel load reduction. Plant species observed on the site are listed in **Table 1**.

Table 1
Plant Species Observed on the San Dimas Site
Organized by Plant Family

FAMILY	*Scientific Name*	Common Name
AMARANTHACEAE	*Amaranth albus*	Tumbleweed
ANACARDIACEAE	*Toxicodendron diversilobum*	Poison Oak
APIACEAE	*Foeniculum vulgare*	Fennel
ASTERACEAE	*Carduus pycnocephalus*	Italian Thistle
	Conyza canadensis	Horseweed
	Lactuca serriola	Prickly lettuce
BRASSICACEAE	*Hirschfeldia incana*	Mediterranean Mustard
CAPRIFOLIACEAE	*Sambucus mexicana*	Elderberry
CUCURBITACEAE	*Marah macrocarpus*	Wild Cucumber
FAGACEAE	*Quercus agrifolia*	Coast Live Oak
	Juglans californica	California Black Walnut
LAMIACEAE	*Marrubium vulgare*	Horehound
MALVACEAE	*Malva neglecta*	Common Mallow
POACEAE	*Bromus diandrus*	Brome
	Avena sp.	Wild Oat
POLYGONACEAE	*Eriogonum fasciculatum*	Buckwheat
	Rumex crispus	Curly Dock
ROSACEAE	*Heteromeles arbutifolia*	Toyon
	Rubus ursinus	California Blackberry
SALICACEAE	*Salix lasiolepis*	Arroyo Willow

Focused Plant Field Survey

An Impact Sciences' botanist and field assistant conducted a focused plant survey to evaluate on-site habitats relative to their potential to support special-status plant species. The entire site was traversed on foot during the potential blooming season for thread-leaved brodiaea. Weather conditions were sunny with an occasional breeze. Air temperature was approximately 80 degrees Fahrenheit. Based on climatological data from the National Weather Service for the Los Angeles area (San Dimas falls within

the Los Angeles Metropolitan area), average rainfall is 70% below normal. The primary objective of the focused plant survey was to determine presence or absence of special-status species with special attention given to habitat for thread-leaved brodiaea.

Specific Requirements for Thread-leaved Brodiaea

Thread-leaved brodiaea, a perennial herb with fibrous-coated corms (similar to bulbs), with tall stalks, narrow leaves and violet flowers typically occurs on gentle hillsides, valleys, and floodplains in mesic, southern needlegrass grassland and alkali grassland plant communities in association with clay, loamy sand, or alkaline silty clay soils. Thread leaved brodiaea is frequently intermixed with, or near a vernal pool (Federal Register, 1998).

RESULTS

Literature Search

Literature search results indicated that a number of special-status plant species have been identified as occurring within the region. The potential occurrence of each plant species considered or identified in the region is listed in **Table 2**. Potential occurrence is determined by factors such as habitat requirements, species distribution and range, and quality of habitat.

Table 2
Special-Status Plant Species Potentially Occurring in the Vicinity

Scientific and Common Names	Status			Habitat	Growth Form (Blooming)	Occurrence Potential
	Federal	State	CNPS			
Abronia villosa var. *aurita* Chaparral sand verbena	–	–	1B	Chaparral, coastal sage scrub	AH (January – August)	*Not expected;* Suitable habitat not present on site
Aster greatae Greata's aster	–	–	1B	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland; mesic.	PH (June – October)	*Not expected;* Suitable habitat not present on site.

Scientific and Common Names	Status			Habitat	Growth Form (Blooming)	Occurrence Potential
	Federal	State	CNPS			
Astragalus brauntonii Braunton's milk-vetch	FE	–	1B	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland; requires carbonite substrate.	PH (March – July)	*Not expected;* Suitable soils not present on site
Atriplex coulteri Coulter's saltbush	--	–	1B	Coastal bluff scrub, coastal scrub, valley and foothill grassland; clay alkaline soil on alkaline substrate in dune and coastal habitats	PH (March – October)	*Not expected;* Suitable soils not present on site
Atriplex serenana var. *davidsonii* Davidson's saltsclae	–	–	1B	Coastal bluff scrub, coastal scrub; alkaline soil on alkaline substrate	AH (April – October)	*Not expected;* Suitable soils not present on site
Berberis nevinii Nevin's barberry	FE	SE	1B	Chaparral, cismontane woodland, coastal scrub, riparian scrub; sandy gravelly soil in riparian habitat.	S (Evergreen) (March – April)	*Not expected;* Suitable soils not present on site
Brodiaea filifolia Thread-leaved brodiaea	FT	SE	1B	Cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Usually associated with annual grassland, vernal pools and clay soils.	PH (March – June)	*Low to Moderate Potential*: sighting in nearby location, clay soils not present on site.
Calochortus clavatus var. *gracilis* Slender mariposa lily	–	–	1B	Chaparral, coastal sage scrub, endemic to LA county. Shaded foothill canyons; often on grassy slopes	PH (March – May)	*Not expected;* Suitable habitat not present on site
Calochortus plummerae Plummer's mariposa lily	SOC	None	1B	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland; granitic rocky soil	PH (May – July)	*Not expected;* Last sighted in nearby location in 1949
Calochortus weedii var. *intermedius* Intermediate mariposa lily	--	–	1B	Chaparral, coastal sage scrub, valley and foothill grassland; rocky	PH (May – July)	*Not expected;* Not known to occur in area

Scientific and Common Names	Status			Habitat	Growth Form (Blooming)	Occurrence Potential
	Federal	State	CNPS			
Centromadia parryi ssp. *australis* Southern Tarplant	--	--	1B	Marshes and swamps, valley and foothill grassland (vernally mesic), and vernal pools.	AH (May-November)	*Not expected;* Suitable habitat not present on site.
Centromadia pungens ssp. *laevis*	[SOC]	--	1B	Chenopod scrub, meadows, playas, riparian woodland, valley and foothill grassland; alkaline	AH (April – September)	*Not expected;* Suitable habitat not present on site
Chorizanthe parryi var. *parryi* Parry's spineflower	--	--	3	Chaparral, coastal sage scrub; dry slopes and flats; sandy soils.	AH (April – June)	*Not expected;* Suitable habitat not present on site
Dodecahema leptoceras Slender-horned spineflower	FE	SE	1B	Chaparral, coastal scrub (alluvial fan sage scrub), flood deposited terraces and washes	AH (April – June)	*Not expected;* Suitable habitat not present on site
Dudleya cymosa ssp. *crebrifloia* San Gabriel River dudleya	--	--	1B	Chaparral, coastal scrub on granite cliffs and outcrops	PH (April – July)	*Not expected;* Suitable habitat not present on site
Dudleya densiflora San Gabriel Mountains dudleya	--	--	1B	Chaparral, coastal scrub, lower montane coniferous forest; in crevices and on decomposed granite on cliffs and canyon walls.	PH (March – July)	*Not expected;* Suitable habitat not present on site
Dudleya multicaulis Many-stemmed dudleya	--	--	1B	Chaparral, coastal sage scrub, valley and foothill grassland; in heavy, often clay soils or grassy slopes	PH (April – July)	*Not expected;* Suitable habitat not present on site
Eriastrum densifloium ssp. *sanctorum* Santa Ana River woollystar	FE	SE	1B	Chaparral, coastal scrub (alluvial fan); sandy or gravelly	PH (June – September)	*Not expected;* Suitable habitat not present on site
Galium grande San Gabriel bedstraw	--	--	1B	Cismontane woodland, chaparral, broadleafed upland forest, lower ontane coniferous forest; open chaparral and low, open oak forest; rocky slopes	S (Deciduous) (January – July)	*Not expected;* Suitable habitat not present on site

Scientific and Common Names	Status			Habitat	Growth Form (Blooming)	Occurrence Potential
	Federal	State	CNPS			
Horkelia cuneata ssp. *puberula* Mesa horkelia	--	--	1B	Chaparral, cismontane woodland, coastal scrub; sandy or gravelly	PH (February – September)	*Not expected;* Suitable habitat not present on site
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	[FSC]	None	1B	Coastal salt marshes and swamps; playas; vernal pools	AH (February-June)	*Not expected;* Suitable habitat not present on site
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	--	--	1B	Chaparral, coastal scrub; dry soils, shrubland.	AH (January – July)	*Not expected;* Suitable habitat not present on site
Lilium parryi Lemon lily	--	--	1B	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest	PH (July – August)	*Not expected;* Suitable habitat not present on site
Linanthus concinnus San Gabriel linanthus	[SOC]	--	1B	Lower montane coniferous forest, upper montane coniferous forest; dry rocky slopes often in jeffrey pine/canyon oak forest	AH (April – July)	*Not expected;* Suitable habitat not present on site
Monardella macrantha ssp. *hallii* Hall's monardella	--	--	1B	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland	PH (June – August)	*Not expected;* Suitable habitat not present on site
Navarretia prostrata Prostrate navarretia	--	--	1B	Coastal scrub, valley and foothill grassland, (alkaline), vernal pools; mesic	AH (April – July)	*Not expected;* Suitable habitat not present on site
Oreonana vestita Woolly mountain-parsley	--	--	1B	Lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest; gravel or talus	PH (May – September)	*Not expected;* Suitable habitat not present on site
Orobanche valida ssp. *valida* Rock creek broomrape	--	--	1B	Chaparral, pinyon juniper woodland; on slopes of loose decomposed granite	PH (May – July)	*Not expected;* Suitable habitat not present on site

Scientific and Common Names	Status			Habitat	Growth Form (Blooming)	Occurrence Potential
	Federal	State	CNPS			
Parnassia cirrata Fringed grass-of-parnassus	--	--	1B	Lower montane coniferous forest, upper montane coniferous forest; mesic	PH (August – September)	*Not expected;* Suitable habitat not present on site
Phacelia stellaris Brand's Phacelia	--	--	1B	Coastal dunes, coastal scrub	AH (March – June)	*Not expected;* Suitable habitat not present on site
Senecio aphanactis Rayless ragwort	--	--	2	Chaparral, cismontane woodland, coastal scrub; alkaline	AH (January – April)	*Not expected;* Suitable habitat not present on site
Sidalcea neomexicana Salt spring checkerbloom	--	--	2	Alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest, mojavean desert scrub	PH (March – June)	*Not expected;* Suitable habitat not present on site
Thelypteris puberula var. *sonorensis* Sonoran maiden fern	--	--	2	Meadows and seeps along streams and seepage areas	PH (January – September)	*Not expected;* Suitable habitat not present on site

Key:
Status:
Federal: FE = Federal Endangered Species; FPE = Federally Proposed Endangered; [FSC] = Federal Species of Concern (a "term of art" not meant to imply *protection under the Endangered Species Act); SOC = Species of Concern*
State: CE = State Endangered Species; CR = California Rare
CNPS: 1B = Plants rare and endangered in California and elsewhere
Growth Form:
AH = Annual Herb *h = hemi-parasitic*
PH = Perennial Herb; *S = Shrub*

CONCLUSION

Upon inspection of the project site, it was determined that no special-status species were present on the site. On-site habitats were closely evaluated to determine suitability to support special-status species. The site is very disturbed due to disking and dumping and supports a majority of non-native grasses and forbs. The project site is not expected to provide habitat for the special-status species that may occur in the area.

It is not expected that soils present on site could support thread-leaved brodiaea. Mesic conditions required by thread-leaved brodiaea and evidence of vernal pools were not present on site. However, it is recommended that a focused plant survey be conducted during an average rainfall year due to the below normal levels of rainfall this year.

Please feel free to contact me at our Agoura Hills office should you have any questions or comments regarding the attached information.

Very truly yours,
IMPACT SCIENCES, INC.

Laura Malessa
Staff Biologist

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