August 31, 2009

Ann Chaney, Director City of Albany Community Development Department Albany, CA 94706

Subject: Arborist Survey Report – Pierce Street Pavement Rehabilitation and Bicycle/Pedestrian

Path Project, Albany, California (ABY0901)

Dear Ann:

This letter provides the results of the tree survey conducted for the Pierce Street Pavement Rehabilitation and Bicycle/Pedestrian Path Project in the City of Albany. The Draft Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the project by LSA Associates, Inc. (LSA) (August 2009) includes a mitigation that requires preparation of a tree survey prior to construction of the project. The purpose of the tree survey is to identify and evaluate trees occurring within the proposed path alignment, which is divided into two segments: the Pierce Street segment (Segment I) and the Caltrans Property and Cleveland Avenue segment (Segment II). The tree survey generally covers the following portions of the project area: a section of Albany Hill located along the east side of Pierce Street, just south of the Gateview condominium complex (555 Pierce Street), the segment of the Caltrans property that generally parallels Interstate 80 (I-80), and the area along the west side of Cleveland Avenue (generally no further out than 20 feet from the edge of the proposed path alignment). The survey area is depicted in Figures 1a through 1d.

1. Methods

LSA certified arborist, Timothy Milliken (WE5539), visited the project area on August 24, and 26, 2009. A total of seventy-five (75) trees were surveyed. The survey included all trees measuring 4 inches in diameter and greater. The survey procedure consisted of the following steps:

- 1. Identifying each live tree to species;
- 2. Positioning each tree on the project map (Tree Map);
- 3. Measuring the trunk diameter of each tree at a point 24 inches above the natural grade;
- 4. If an individual tree had multiple trunks, the diameters of all trunks were totaled;
- 5. The health and structural condition of each tree was evaluated as being either:
 - Good Trees with good health and structure that have potential for longevity on site.
 - Fair Trees with somewhat declining health and/or structural defects that can be abated with treatment. The tree will require more intense management and monitoring, and may have a shorter life span than those in the "good" category if located in or adjacent to developed areas.

• *Poor* – Trees in poor health or with significant structural defects that cannot be mitigated. Trees in this category are expected to continue to decline, regardless of treatment. The species or individual tree may have characteristics that are undesirable for landscapes, and generally are unsuited for use in developed areas.

2. Results

A total of 75 trees, representing 13 different species (two native to the Albany area, 11 ornamental), were identified on the project site, as shown in Table 1.

Table 1: Summary of Trees Observed in the Survey Area

		Trees in	Trees in	Trees in	
		Fair	Good	Poor	Trees within
Species name	Common name	Condition	Condition	Condition	Survey Area
Acacia baileyana	Bailey acacia	1			1
Acacia mealanoxylon	Blackwood acacia	4	14	2	20
Calocedrus decurrens	Incense cedar	2	1		3
Eucalyptus camaldulensis	Red gum eucalyptus		1		1
Eucalyptus globulus	Blue gum eucalyptus	1	13		14
Eucalyptus psammitica	White mahogany	6	6		12
Juniperus communis	Common juniper		2		2
Ligustrum lucidum	Glossy privet	2	1		3
Pittosporum crassifolium	Pittosporum		1		1
Pseudotsuga menziesii	Douglas fir	1	1		2
Quercus agrifolia	Coast live oak		1		1
Sequoia sempervirens	Coast redwood		2		2
Syzygium paniculatum	Brush cherry		13		13
Total		17	56	2	75

Details of the tree survey results are presented in the attached tree survey results table. The table lists each tree by number (shown in Figure 1a-1d) and provides the common and scientific name, diameter, and condition for each tree.

- **a. Discussion.** Over the course of the evaluation LSA's certified arborist met at the project site with Albany's Urban Forester Tony Wolcott to discuss the segments of the proposed alignment as they relate to the street tree inventory provided in this report. The two segments of the project path's proposed alignment are discussed below.
- (1) Segment I (Pierce Street). This segment includes a proposed Class I bicycle/pedestrian path from the Cerrito Creek Trail on the north to the south end of the Gateway condominium complex (555 Pierce Street) and the north end of the Caltrans property. Pavement rehabilitation would also occur along this segment of Pierce Street. Development of this segment of the path would have minimal impact on the street trees located in front of 545 and 555 Pierce Street. It is assumed that road grading and paving would not occur within the root zone of these trees. Canopy pruning may need to take place in order to provide clearance for paving equipment. This type of impact is minimal and should be monitored by a certified arborist or the City's urban forester.

The project may remove or trim the existing eucalyptus trees within a 0.02-acre segment of Albany Hill on the east side of Pierce Street. A total of nine blue gum eucalyptus were surveyed in the northeast area of Albany Hill. No trees occur on the west side of Pierce Street.

(2) Segment II (Caltrans Property and Cleveland Avenue). The proposed path would continue from the southern end of Segment I slightly west, leaving Pierce Street and continuing down the slope to run parallel to the I-80 freeway and through the Caltrans property. The path would then continue south to Buchanan Street, along Cleveland Avenue.

The black acacia and white mahogany specimens within the Caltrans property are not maintained and have grown into a thick stand of impenetrable vegetation. The City's urban forester maintains these trees where they extend into the City right of way. LSA and the City's urban forester agree that removal of these trees would not be considered a significant loss to the community urban forest.

Other trees (i.e., not the black acacia and white mahogany trees) that are not removed as part of the project should be protected from accidental impacts by enclosing them in a root protection zone as discussed below.

Development of the path along Cleveland Avenue would remove all trees on the west side of roadway. Although the coast redwood and the coast live oak are highly desirable native species, the location where they are growing is not favorable to their natural growth form. This part of Segment II is constrained on the east by Cleveland Avenue, on the west by the railroad right of way, and above by high voltage wires. The City's urban forester values the redwood and coast live oak, but does not believe their removal for the purpose of the pathway would constitute a significant impact.

b. Recommendations. Recommendations for the treatment of trees and tree replacement within the project area are provided below.

Segment I

- Canopy pruning should be monitored by a certified arborist or the City's urban forester.
- Determine which trees will remain on the slope of Albany Hill and establish a tree protection zone as discussed below.

Segment II

- Determine which trees will remain on the Caltrans property and establish a tree protection zone as discussed below.
- Plantings along Cleveland Avenue, west of the new pathway, are recommended to screen the
 residential area from the railroad tracks, which would be exposed due to tree removal occurring
 with project construction.

Area-Wide

Trees to be retained should be enclosed in a tree protection zone (TPZ) to prevent direct damage to the trees and their growing environment during the construction process. It is recommended that a TPZ be

established around the trees at a distance of five feet or more, by installing a temporary fence around the tree. The fencing should be installed before site preparation, construction activities, or tree trimming begins and should consist of blaze orange barrier fencing supported by metal "T rail" fence posts.

Heavy machinery should not be allowed to operate or park within the TPZ. If it is necessary for heavy machinery to operate within the dripline of the protected trees, then a layer of mulch or pea gravel at least 4 inches in depth should be placed on the ground beneath the dripline. A ¾-inch sheet of plywood should be placed on top of the mulch. The plywood and mulch will reduce compaction of the soil within the dripline. Debris or materials should not be placed within TPZs or against tree trunks. It may be necessary to trim the canopy of a tree to reduce the hazard of accidental limb failure or to allow the movement of construction machinery. Although no specific branch or branches are recommended for removal, planned tree work should consider removing dead, crossed and/or malformed limbs. All branches to be removed should be pruned back to an appropriate sized laterally or to the trunk by following proper pruning guidelines. It is recommended that a professional tree company with certified arborists be retained to do this work.

LSA appreciates the opportunity to provide this report. Please feel free to contact me if you have questions or comments.

Sincerely,

LSA ASSOCIATES, INC.

Timothy Milliken

International Society of Arboriculture (ISA) Certified Arborist WC-5539

Attachments

Figure 1: Tree Map Tree Survey Results

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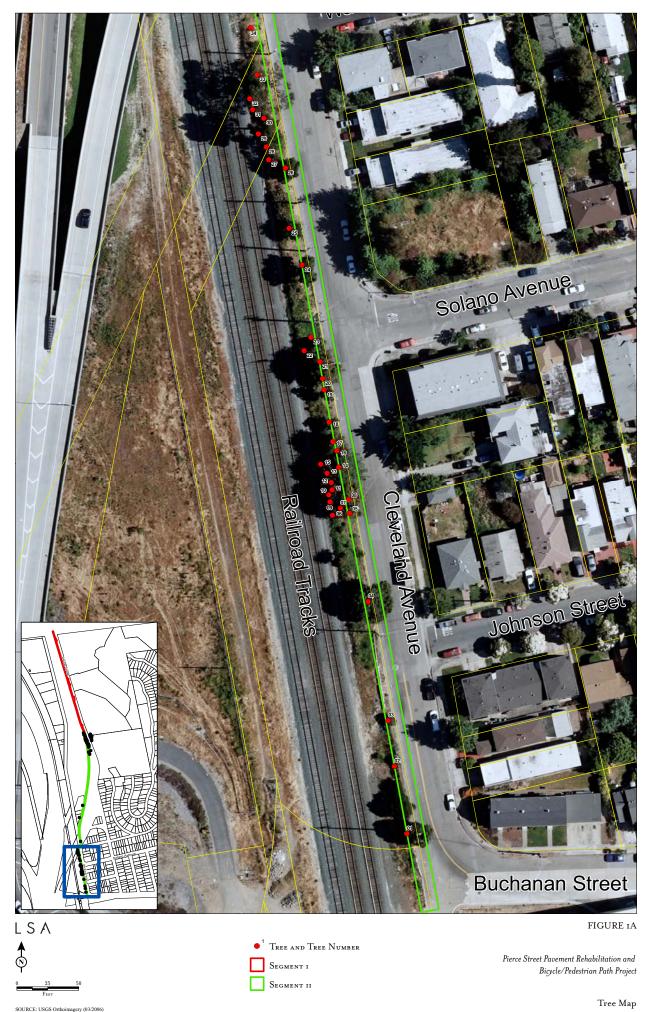
Tree Survey Results

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Tree number	Common name (species name)	Diameter (inches)	Condition	Notes
1	Blackwood acacia (Acacia melanoxylon)	12	good	North of Buchanan Street.
2	Common juniper (Juniperus communis)	8	good	North of Buchanan Street, 3 stem.
3	Glossy privet (Ligustrum lucidum)	5	good	North of Buchanan Street.
4	Blackwood acacia (Acacia melanoxylon)	16	good	North of Buchanan Street.
5	Brush cherry (Syzygium paniculata)	6	good	North of Johnson Street.
6	Brush cherry (Syzygium paniculata)	8	good	North of Johnson Street.
7	Brush cherry (Syzygium paniculata)	4	good	North of Johnson Street.
8	Brush cherry (Syzygium paniculata)	23	good	North of Johnson Street, 2 stem.
9	Brush cherry (Syzygium paniculata)	4	good	North of Johnson Street.
10	Brush cherry (Syzygium paniculata)	6	good	North of Johnson Street.
11	Brush cherry (Syzygium paniculata)	6	good	North of Johnson Street.
12	Brush cherry (Syzygium paniculata)	5	good	North of Johnson Street.
13	Brush cherry (Syzygium paniculata)	4	good	North of Johnson Street.
14	Coast redwood (Sequoia sempervirens)	22	good	North of Johnson Street, topped.
15	Brush cherry (Syzygium paniculata)	10	good	North of Johnson Street, 2 stem.
16	Douglas fir (Pseudotsuga menziesii)	15	good	North of Johnson Street, topped.
17	Brush cherry (Syzygium paniculata)	18	good	North of Johnson Street, 3 stem.
18	Incense cedar (Calocedrus decurrens)	13	fair	North of Johnson Street, ivy on trunk.
19	Incense cedar (Calocedrus decurrens)	12	fair	North of Johnson Street, ivy on trunk.

Tree number	Common name (species name)	Diameter (inches)	Condition	Notes
20	Douglas fir (Pseudotsuga menziesii)	9	fair	North of Johnson Street, ivy on trunk.
21	Brush cherry (Syzygium paniculata)	48	good	North of Johnson Street, ivy on trunk, 4 stem.
22	Brush cherry (Syzygium paniculata)	6	good	North of Johnson Street, ivy on trunk.
23	Common juniper (Juniperus communis)	8	good	North of Johnson Street, ivy on trunk.
24	Incense cedar (Calocedrus decurrens)	30	good	North of Solano Avenue, 2 stem.
25	Coast live oak (Quercus agrifolia)	17	good	North of Solano Avenue, 2 stem.
26	Blackwood acacia (Acacia melanoxylon)	10	good	North of Solano Avenue.
27	Glossy privet (Ligustrum lucidum)	15	fair	North of Solano Avenue, 5 stem.
28	Glossy privet (Ligustrum lucidum)	18	fair	North of Solano Avenue, 2 stem.
29	Blue gum eucalyptus (Eucalyptus globulus)	24	fair	North of Solano Avenue.
30	Blue gum eucalyptus (Eucalyptus globulus)	7	good	North of Solano Avenue.
31	Blue gum eucalyptus (Eucalyptus globulus)	8	good	North of Solano Avenue.
32	Blue gum eucalyptus (Eucalyptus globulus)	16	good	North of Solano Avenue.
33	Blue gum eucalyptus (Eucalyptus globulus)	36	good	North of Solano Avenue.
34	Coast redwood (Sequoia sempervirens)	2	good	North of Solano Avenue, small tree.
35	Red gum eucalyptus (Eucalyptus camaldulensis)	11	good	North of Washington Avenue.
36	Blackwood acacia (Acacia melanoxylon)	4	good	Caltrans property, underneath I-80 onramp.
37	Bailey acacia (Acacia baileyana)	2	fair	Caltrans property.
38	White mahogany (Eucalyptus psammitica)	4	good	Caltrans property.
39	White mahogany (Eucalyptus psammitica)	4	good	Caltrans property, 2 stem resprouting at fence.

Tree number	Common name (species name)	Diameter (inches)	Condition	Notes
40	White mahogany (Eucalyptus psammitica)	4	good	Caltrans property, 3 stem.
41	Blackwood acacia (Acacia melanoxylon)	4	good	Caltrans property.
42	Blackwood acacia (Acacia melanoxylon)	22	good	Caltrans property, 5 stem.
43	White mahogany (Eucalyptus psammitica)	6	fair	Caltrans property.
44	White mahogany (Eucalyptus psammitica)	12	fair	Caltrans property, 2 stem.
45	White mahogany (Eucalyptus psammitica)	24	fair	Caltrans property, 4 stem.
46	Blackwood acacia (Acacia melanoxylon)	6	good	Caltrans property.
47	Blackwood acacia (Acacia melanoxylon)	6	good	Caltrans property.
48	White mahogany (Eucalyptus psammitica)	8	fair	Caltrans property, 2 stem.
49	Blackwood acacia (Acacia melanoxylon)	4	good	Caltrans property.
50	Blackwood acacia (Acacia melanoxylon)	4	fair	Caltrans property, leans.
51	Blackwood acacia (Acacia melanoxylon)	4	fair	Caltrans property, leans.
52	Blackwood acacia (Acacia melanoxylon)	4	fair	Caltrans property.
53	Blackwood acacia (Acacia melanoxylon)	40	good	Caltrans property, 4 stem, behind sign.
54	White mahogany (Eucalyptus psammitica)	12	fair	Caltrans property, bark cracked, tree dying.
55	Blackwood acacia (Acacia melanoxylon)	9	poor	Caltrans property, 3 stem.
56	Blackwood acacia (Acacia melanoxylon)	10	good	Caltrans property.
57	Blackwood acacia (Acacia melanoxylon)	24	good	Caltrans property.
58	White mahogany (Eucalyptus psammitica)	4	good	Caltrans property, 2 stem.
59	White mahogany (Eucalyptus psammitica)	4	good	Caltrans property, 2 stem.

Tree number	Common name (species name)	Diameter (inches)	Condition	Notes
60	Blackwood acacia (Acacia melanoxylon)	5	fair	Caltrans property, 2 stem, sap rot.
61	Blackwood acacia (Acacia melanoxylon)	9	good	Caltrans property, at fence.
62	White mahogany (Eucalyptus psammitica)	10	fair	Caltrans property, 2 stem, shrubby.
63	White mahogany (Eucalyptus psammitica)	8	good	Caltrans property, 2 stem, near fence.
64	Pittosporum (Pittosporum crassifolium)	24	good	Caltrans property, 4 stem.
65	Blackwood acacia (Acacia melanoxylon)	6	poor	Caltrans property, dying.
66	Blackwood acacia (Acacia melanoxylon)	4	good	Caltrans property.
67	Blue gum eucalyptus (Eucalyptus globulus)	24	good	Albany Hill Park.
68	Blue gum eucalyptus (Eucalyptus globulus)	48	good	Albany Hill Park, 7 stem, leans.
69	Blue gum eucalyptus (Eucalyptus globulus)	5	good	Albany Hill Park.
70	Blue gum eucalyptus (Eucalyptus globulus)	6	good	Albany Hill Park.
71	Blue gum eucalyptus (Eucalyptus globulus)	15	good	Albany Hill Park, 3 stem.
72	Blue gum eucalyptus (Eucalyptus globulus)	30	good	Albany Hill Park.
73	Blue gum eucalyptus (Eucalyptus globulus)	8	good	Albany Hill Park.
74	Blue gum eucalyptus (Eucalyptus globulus)	50	good	Albany Hill Park.
75	Blue gum eucalyptus (Eucalyptus globulus)	8	good	Albany Hill Park.





Tree Map SOURCE: USGS Orthoimagery (032006)

E/ABY0901/GIS/Maps/Figure IB_TreeSurvey.mxd (08/31/2009)



SOURCE: USGS Orthoimagery (03/2006)

E-ABY 9001/GISMaps/Figure IC_TreeSurvey.mxd (08/31/2009)

