
APPENDIX E

ARBORIST REPORT

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January 22, 2020

Dawn Merkes
Group 4 Architecture, Research + Planning, Inc.
211 Linden Avenue
South San Francisco, California 94080

Subject: Arborist Report, San Bruno Recreation and Aquatic Center Project
San Bruno, San Mateo County, California

Dear Dawn:

This arborist report provides the results of a tree survey and an analysis of trees that may be impacted by development of the San Bruno Recreation and Aquatic Center Project (project). This arborist report was prepared according to provisions and policies provided in the City of San Bruno's (City) Municipal Code.¹ The tree survey identified, located, and assessed the condition of all trees within a tree survey area that includes the project site (tree map, Figure 1).

MUNICIPAL CODE

The City's Municipal Code Chapter 8.25, defines "heritage tree" as:

- Any native bay (*Umbellularia californica*), buckeye (*Aesculus* species), oak (*Quercus* species), redwood (*Sequoia sempervirens*), or pine (*Pinus radiata*) tree that has a diameter of 6 inches or more measured at 54 inches above natural grade;
- Any tree or stand of trees designated by resolution of the city council to be of special historical value or of significant community benefit;
- A stand of trees, the nature of which makes each dependent on the others for survival; or
- Any other tree with a trunk diameter of 10 inches or more, measured at 54 inches above natural grade.

Chapter 8.25.050 of the City's Municipal Code stipulates the following regarding heritage tree removal:

- Any heritage tree proposed to be removed or pruned in conjunction with any planning or building permit application will also require a separate removal permit pursuant to Section 8.25.040;

¹ Chapter 8.25 of the San Bruno Municipal Code, Heritage Trees.

- Trees removed with a valid tree removal permit shall be replaced in accordance with the recommendation of the director of public works or designee. Replacement recommendations shall be formulated on the basis of location, condition, value, age, and reasons for tree removal. Tree replacement shall be a minimum of either two 24-inch box size trees, or one 36-inch box size tree, for each heritage tree removed, to be determined by the director of public works or designee; and
- Where the director of public works or designee determines that replanting is not feasible and/or appropriate (e.g., sufficient trees exist on site, conflicts with utilities), the director may require that a payment of equal value to the cost of the purchase and installation of the replacement tree(s) be made to the city tree planting fund. (Ord. 1669 § 1, 2002).

As a City-sponsored project, the proposed project is not required to obtain tree removal permits; however, the City generally endeavors to meet the replacement standards outlined in the code for protected trees.

METHODS

LSA arborist Tim Milliken conducted the tree survey on April 19 and May 1, 2019. All trees within the tree survey area that were at least 6 inches in diameter at breast height (DBH) were included in the tree survey (DBH is typically measured at 54 inches above the natural grade). The tree survey involved attaching a sequentially numbered metal tag to trees within the tree survey area and recording their species, trunk diameter, and condition. If an individual tree had multiple trunks, the diameters of all the trunks were totaled. The individual surveyed trees were mapped and numbered on a tree map (Figure 1). The locations of the trees were plotted on the surveyed site plan provided by Group 4.

The health and structural condition of each tree were classified as follows:

- **Good** – Trees with good health and structure that have potential for longevity on site;
- **Fair** – Trees with somewhat declining health and/or structural defects; or
- **Poor** – Trees in poor health or with significant structural defects that cannot be mitigated. Trees in this category are expected to continue to decline.

RESULTS

A total of 198 trees were surveyed within the survey area. These trees are documented in Table A and Table B and depicted on the tree map (Figure 1).

Of the total trees surveyed, 169 trees are classified as “heritage tree” per the Municipal Code definition, with the remaining 29 trees classified as “Not protected.” The number, type of tree, and anticipated disposition of all trees are summarized in Table A. The number, type of tree and anticipated disposition of “heritage trees” is provided in Table C, which is embedded in Figure 1.

Table B contains additional information on the trees identified within the tree survey area, including: tree ID number; scientific name and common name; trunk diameter; condition (health and structure); protected status; and anticipated impact (disposition). Anticipated impact categories include permanent impact (removal) and no impact (retained tree).

IMPACTS TO TREES

The proposed project would result in the removal of 52 heritage trees from the site as summarized in Table A.

TREES TO BE RETAINED DURING CONSTRUCTION

The project will retain 117 “heritage trees” within the survey area, including one tree that will be a centerpiece of the new building’s design. Tree #14 is a specimen coast redwood (*Sequoia sempervirens*) tree that is in excellent health and has a good structure. In general, coast redwoods are tolerant to impacts such as root severance and have an extraordinary ability to compensate for disruptions to their root systems.² Although it is likely that Tree #14 would survive impacts related to construction, the tree should be continually monitored for health and stability by a professional arborist.

RECOMMENDED MITIGATION

As described above, tree removal permits would not be required for the proposed project; therefore, mitigation is not required. However, the City generally endeavors to meet the replacement standards outlined in the Municipal Code for protected trees, and the proposed SBRAC has been designed to preserve heritage trees (especially Tree #14, referenced above). As feasible, LSA recommends implementing the following measures:

- Consistent with the Municipal Code, the 52 removed trees should be replaced with a minimum of either two 24-inch box size trees, or one 36-inch box size tree, for each heritage tree removed, to be determined by the director of public works or designee. This would result in 52 to 104 trees being planted onsite.
- LSA also recommends that tree protection measures be implemented for any protected tree that is to be retained throughout construction. Tree protection measures are provided in Attachment A.

² Stone, E. C., and R. B. Vasey. 1962. Studies Related to the Physiology and Vigor of Old Growth Redwood: Root Regenerating Capacity of Mature Plants. Redwood Ecology Project. Annual Report. Wildland Research Center, University of California. California Department of Parks and Recreation.

We appreciate the opportunity to provide this report to you and are available to answer questions if needed. 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, WE-5539A

Enclosures: Figure 1: Tree Map/Table C
 Table A: Summary of Trees in the Tree Survey Area
 Table B: Detailed Data for Trees on the San Bruno Recreation Center Project Site
 Attachment A: Tree Protection Measures

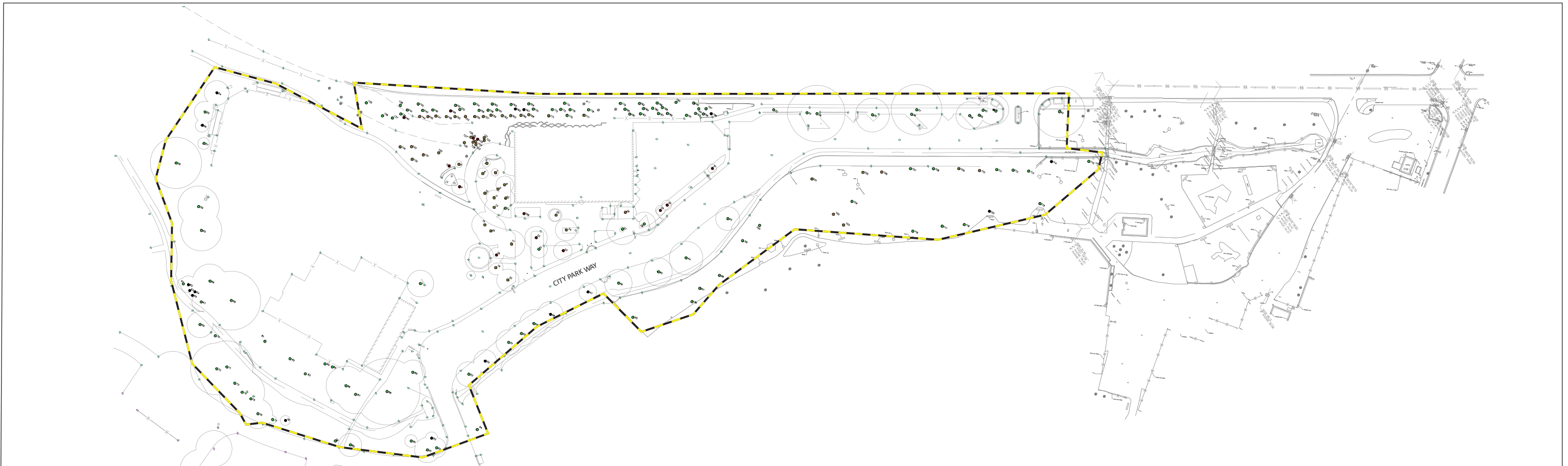


Table C. Heritage Trees in the San Bruno Recreation Center Tree Survey Area

ID	Species Name	Common Name	Diameter in inches	Health*	Structure*	Disposition	Protected Status
1	<i>Platanus x acerifolia</i>	London plane	16	Good	Good	Retain	Heritage tree
3	<i>Pinus canariensis</i>	Canary Island pine	13	Good	Good	Remove	Heritage tree
5	<i>Pinus canariensis</i>	Canary Island pine	12	Good	Good	Remove	Heritage tree
6	<i>Pinus canariensis</i>	Canary Island pine	20	Good	Good	Remove	Heritage tree
7	<i>Pinus canariensis</i>	Canary Island pine	22	Good	Good	Remove	Heritage tree
8	<i>Sequoia sempervirens</i>	Coast redwood	12	Good	Good	Remove	Heritage tree
9	<i>Sequoia sempervirens</i>	Coast redwood	13	Good	Good	Remove	Heritage tree
10	<i>Pinus canariensis</i>	Canary Island pine	13	Good	Good	Remove	Heritage tree
11	<i>Sequoia sempervirens</i>	Coast redwood	11	Good	Good	Remove	Heritage tree
12	<i>Sequoia sempervirens</i>	Coast redwood	24	Good	Good	Remove	Heritage tree
13	<i>Sequoia sempervirens</i>	Coast redwood	23	Good	Good	Remove	Heritage tree
14	<i>Sequoia sempervirens</i>	Coast redwood	44	Good	Good	Retain	Heritage tree
15	<i>Maytenus boaria</i>	Mayten tree	12	Good	Good	Remove	Heritage tree
16	<i>Maytenus boaria</i>	Mayten tree	13	Good	Good	Remove	Heritage tree
17	<i>Eucalyptus nicholii</i>	Willow-leaved peppermint	39	Good	Good	Remove	Heritage tree
19	<i>Prunus serrulata</i>	Flowering cherry	11	Good	Good	Remove	Heritage tree
20	<i>Platanus x acerifolia</i>	London plane	11	Good	Good	Remove	Heritage tree
21	<i>Quercus agrifolia</i>	Coast live oak	27	Good	Good	Retain	Heritage tree
24	<i>Magnolia grandiflora</i>	Southern magnolia	24	Good	Good	Remove	Heritage tree
25	<i>Picea pungens</i>	Blue spruce	12	Good	Good	Remove	Heritage tree
26	<i>Cedrus deodora</i>	Deodar cedar	34	Good	Good	Remove	Heritage tree
27	<i> Zelkova serrata</i>	Japanese zelkova	12	Good	Good	Retain	Heritage tree
28	<i>Platanus x acerifolia</i>	London plane	19	Good	Good	Retain	Heritage tree
32	<i>Eucalyptus globulus</i>	Tasmanian blue gum	17	Fair	Poor	Retain	Heritage tree
33	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Retain	Heritage tree
34	<i>Eucalyptus globulus</i>	Tasmanian blue gum	49	Fair	Poor	Retain	Heritage tree
35	<i>Eucalyptus globulus</i>	Tasmanian blue gum	32	Fair	Poor	Retain	Heritage tree
36	<i>Eucalyptus globulus</i>	Tasmanian blue gum	51	Fair	Poor	Retain	Heritage tree
37	<i>Eucalyptus globulus</i>	Tasmanian blue gum	19	Fair	Poor	Retain	Heritage tree
38	<i>Eucalyptus globulus</i>	Tasmanian blue gum	31	Fair	Poor	Retain	Heritage tree
39	<i>Eucalyptus globulus</i>	Tasmanian blue gum	17	Fair	Poor	Retain	Heritage tree
40	<i>Eucalyptus globulus</i>	Tasmanian blue gum	24	Fair	Poor	Retain	Heritage tree
41	<i>Eucalyptus globulus</i>	Tasmanian blue gum	31	Fair	Poor	Retain	Heritage tree
42	<i>Eucalyptus globulus</i>	Tasmanian blue gum	48	Fair	Poor	Retain	Heritage tree

Table C. Heritage Trees in the San Bruno Recreation Center Tree Survey Area (cont.)

ID	Species Name	Common Name	Diameter in inches	Health*	Structure*	Disposition	Protected Status
43	<i>Platanus x acerifolia</i>	London plane	19	Good	Good	Retain	Heritage tree
44	<i>Platanus x acerifolia</i>	London plane	14	Good	Good	Retain	Heritage tree
45	<i>Magnolia grandiflora</i>	Southern magnolia	14	Good	Good	Retain	Heritage tree
46	<i>Magnolia grandiflora</i>	Southern magnolia	13	Good	Good	Retain	Heritage tree
49	<i>Platanus x acerifolia</i>	London plane	11	Good	Good	Retain	Heritage tree
50	<i>Platanus x acerifolia</i>	London plane	10	Good	Good	Retain	Heritage tree
51	<i>Platanus x acerifolia</i>	London plane	11	Good	Good	Retain	Heritage tree
53	<i>Platanus x acerifolia</i>	London plane	12	Good	Good	Retain	Heritage tree
55	<i>Platanus x acerifolia</i>	London plane	10	Good	Good	Retain	Heritage tree
57	<i>Prunus cerasifera</i>	Purple leaf plum	10	Fair	Fair	Retain	Heritage tree
58	<i>Platanus x acerifolia</i>	London plane	40	Good	Good	Retain	Heritage tree
59	<i>Platanus x acerifolia</i>	London plane	38	Good	Good	Retain	Heritage tree
60	<i>Platanus x acerifolia</i>	London plane	26	Good	Good	Retain	Heritage tree
61	<i>Betula pendula</i>	Silver birch	10	Good	Good	Retain	Heritage tree
66	<i>Betula pendula</i>	Silver birch	10	Good	Good	Retain	Heritage tree
67	<i>Platanus x acerifolia</i>	London plane	30	Fair	Fair	Retain	Heritage tree
68	<i>Platanus x acerifolia</i>	London plane	38	Good	Good	Retain	Heritage tree
69	<i>Quercus agrifolia</i>	Coast live oak	31	Good	Good	Retain	Heritage tree
70	<i>Quercus agrifolia</i>	Coast live oak	53	Good	Good	Retain	Heritage tree
71	<i>Eucalyptus globulus</i>	Tasmanian blue gum	38	Good	Good	Retain	Heritage tree
72	<i>Quercus agrifolia</i>	Coast live oak	20	Good	Good	Retain	Heritage tree
73	<i>Quercus agrifolia</i>	Coast live oak	32	Good	Good	Retain	Heritage tree
74	<i>Quercus agrifolia</i>	Coast live oak	37	Good	Good	Retain	Heritage tree
75	<i>Quercus agrifolia</i>	Coast live oak	16	Good	Good	Retain	Heritage tree
76	<i>Quercus agrifolia</i>	Coast live oak	9	Good	Good	Retain	Heritage tree
77	<i>Quercus agrifolia</i>	Coast live oak	8	Good	Good	Retain	Heritage tree
79	<i>Zelkova serrata</i>	Japanese zelkova	12	Good	Good	Retain	Heritage tree
80	<i>Platanus x acerifolia</i>	London plane	17	Fair	Fair	Retain	Heritage tree
81	<i>Platanus x acerifolia</i>	London plane	18	Good	Good	Retain	Heritage tree
82	<i>Platanus x acerifolia</i>	London plane	30	Good	Good	Retain	Heritage tree
83	<i>Platanus x acerifolia</i>	London plane	21	Good	Good	Retain	Heritage tree
84	<i>Quercus agrifolia</i>	Coast live oak	6	Good	Fair	Retain	Heritage tree
85	<i>Quercus agrifolia</i>	Coast live oak	6	Good	Fair	Retain	Heritage tree
86	<i>Platanus x acerifolia</i>	London plane	19	Good	Good	Retain	Heritage tree

Table C. Heritage Trees in the San Bruno Recreation Center Tree Survey Area (cont.)

ID	Species Name	Common Name	Diameter in inches	Health*	Structure*	Disposition	Protected Status
87	<i>Platanus x acerifolia</i>	London plane	22	Good	Good	Retain	Heritage tree
88	<i>Platanus x acerifolia</i>	London plane	22	Good	Good	Retain	Heritage tree
89	<i>Platanus x acerifolia</i>	London plane	11	Good	Good	Retain	Heritage tree
90	<i>Platanus x acerifolia</i>	London plane	11	Fair	Fair	Retain	Heritage tree
91	<i>Zelkova serrata</i>	Japanese zelkova	16	Good	Good	Retain	Heritage tree
92	<i>Zelkova serrata</i>	Japanese zelkova	12	Good	Good	Retain	Heritage tree
94	<i>Sequoia sempervirens</i>	Coast redwood	52	Good	Good	Retain	Heritage tree
95	<i>Populus fremontii</i>	Fremont cottonwood	44	Good	Fair	Retain	Heritage tree
96	<i>Liquidambar styraciflua</i>	Sweet gum	33	Good	Fair	Retain	Heritage tree
97	<i>Platanus x acerifolia</i>	London plane	20	Fair	Fair	Retain	Heritage tree
98	<i>Platanus x acerifolia</i>	London plane	23	Fair	Fair	Retain	Heritage tree
99	<i>Platanus x acerifolia</i>	London plane	21	Good	Good	Retain	Heritage tree
100	<i>Platanus x acerifolia</i>	London plane	40	Good	Good	Retain	Heritage tree
101	<i>Metasequoia glyptostroboides</i>	Dawn redwood	15	Good	Good	Remove	Heritage tree
102	<i>Sequoia sempervirens</i>	Coast redwood	30	Good	Good	Remove	Heritage tree
103	<i>Sequoia sempervirens</i>	Coast redwood	16	Good	Good	Remove	Heritage tree
104	<i>Sequoia sempervirens</i>	Coast redwood	59	Good	Good	Retain	Heritage tree
105	<i>Platanus x acerifolia</i>	London plane	32	Good	Good	Remove	Heritage tree
106	<i>Platanus x acerifolia</i>	London plane	16	Good	Good	Remove	Heritage tree
107	<i>Platanus x acerifolia</i>	London plane	21	Good	Good	Retain	Heritage tree
108	<i>Platanus x acerifolia</i>	London plane	23	Good	Good	Retain	Heritage tree
109	<i>Platanus x acerifolia</i>	London plane	21	Good	Good	Remove	Heritage tree
110	<i>Platanus x acerifolia</i>	London plane	10	Good	Good	Remove	Heritage tree
111	<i>Platanus x acerifolia</i>	London plane	16	Good	Good	Retain	Heritage tree
112	<i>Platanus x acerifolia</i>	London plane	14	Good	Good	Retain	Heritage tree
113	<i>Platanus x acerifolia</i>	London plane	18	Good	Good	Retain	Heritage tree
115	<i>Alnus rhombifolia</i>	White alder	11	Good	Good	Retain	Heritage tree
116	<i>Liquidambar styraciflua</i>	Sweet gum	32	Good	Good	Retain	Heritage tree
117	<i>Sequoia sempervirens</i>	Coast redwood	16	Good	Good	Retain	Heritage tree
118	<i>Sequoia sempervirens</i>	Coast redwood	31	Good	Good	Retain	Heritage tree
119	<i>Acer buergerianum</i>	Trident maple	13	Fair	Fair	Retain	Heritage tree
121	<i>Eucalyptus globulus</i>	Tasmanian blue gum	22	Fair	Poor	Remove	Heritage tree
122	<i>Eucalyptus globulus</i>	Tasmanian blue gum	22	Fair	Poor	Remove	Heritage tree
123	<i>Eucalyptus globulus</i>	Tasmanian blue gum	18	Fair	Poor	Remove	Heritage tree

Table C. Heritage Trees in the San Bruno Recreation Center Tree Survey Area (cont.)

ID	Species Name	Common Name	Diameter in inches	Health*	Structure*	Disposition	Protected Status
124	<i>Eucalyptus globulus</i>	Tasmanian blue gum	20	Fair	Poor	Remove	Heritage tree
127	<i>Eucalyptus globulus</i>	Tasmanian blue gum	21	Fair	Poor	Remove	Heritage tree
128	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Remove	Heritage tree
129	<i>Eucalyptus polyanthemomus</i>	Red box	12	Fair	Poor	Remove	Heritage tree
130	<i>Eucalyptus polyanthemomus</i>	Red box	15	Fair	Poor	Remove	Heritage tree
131	<i>Eucalyptus polyanthemomus</i>	Red box	18	Fair	Poor	Remove	Heritage tree
132	<i>Eucalyptus polyanthemomus</i>	Red box	23	Fair	Poor	Remove	Heritage tree
133	<i>Eucalyptus polyanthemomus</i>	Red box	18	Fair	Poor	Remove	Heritage tree
134	<i>Eucalyptus polyanthemomus</i>	Red box	14	Fair	Poor	Remove	Heritage tree
135	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Retain	Heritage tree
136	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Retain	Heritage tree
137	<i>Eucalyptus globulus</i>	Tasmanian blue gum	36	Fair	Poor	Retain	Heritage tree
138	<i>Eucalyptus globulus</i>	Tasmanian blue gum	50	Fair	Poor	Retain	Heritage tree
139	<i>Eucalyptus globulus</i>	Tasmanian blue gum	60	Fair	Poor	Retain	Heritage tree
141	<i>Eucalyptus globulus</i>	Tasmanian blue gum	38	Fair	Poor	Retain	Heritage tree
142	<i>Eucalyptus globulus</i>	Tasmanian blue gum	15	Fair	Poor	Retain	Heritage tree
143	<i>Eucalyptus globulus</i>	Tasmanian blue gum	12	Fair	Poor	Retain	Heritage tree
144	<i>Eucalyptus globulus</i>	Tasmanian blue gum	64	Fair	Poor	Remove	Heritage tree
145	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Remove	Heritage tree
146	<i>Eucalyptus globulus</i>	Tasmanian blue gum	20	Fair	Poor	Retain	Heritage tree
147	<i>Eucalyptus globulus</i>	Tasmanian blue gum	48	Fair	Poor	Remove	Heritage tree
148	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Remove	Heritage tree
150	<i>Eucalyptus globulus</i>	Tasmanian blue gum	30	Fair	Poor	Remove	Heritage tree
151	<i>Eucalyptus globulus</i>	Tasmanian blue gum	20	Fair	Poor	Retain	Heritage tree
152	<i>Eucalyptus globulus</i>	Tasmanian blue gum	24	Fair	Poor	Retain	Heritage tree
153	<i>Eucalyptus globulus</i>	Tasmanian blue gum	28	Fair	Poor	Remove	Heritage tree
154	<i>Eucalyptus globulus</i>	Tasmanian blue gum	16	Fair	Poor	Retain	Heritage tree
155	<i>Eucalyptus globulus</i>	Tasmanian blue gum	26	Fair	Poor	Remove	Heritage tree
156	<i>Eucalyptus globulus</i>	Tasmanian blue gum	16	Fair	Poor	Retain	Heritage tree
157	<i>Eucalyptus globulus</i>	Tasmanian blue gum	25	Fair	Poor	Remove	Heritage tree
158	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Retain	Heritage tree
159	<i>Eucalyptus globulus</i>	Tasmanian blue gum	30	Fair	Poor	Remove	Heritage tree
160	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Retain	Heritage tree
161	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Retain	Heritage tree

Table C. Heritage Trees in the San Bruno Recreation Center Tree Survey Area (cont.)

ID	Species Name	Common Name	Diameter in inches	Health*	Structure*	Disposition	Protected Status
162	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Remove	Heritage tree
163	<i>Eucalyptus globulus</i>	Tasmanian blue gum	30	Fair	Poor	Remove	Heritage tree
164	<i>Eucalyptus globulus</i>	Tasmanian blue gum	16	Fair	Poor	Retain	Heritage tree
166	<i>Eucalyptus globulus</i>	Tasmanian blue gum	24	Fair	Poor	Remove	Heritage tree
168	<i>Eucalyptus globulus</i>	Tasmanian blue gum	26	Fair	Poor	Remove	Heritage tree
169	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Dead	Dead	Retain	Heritage tree
170	<i>Eucalyptus globulus</i>	Tasmanian blue gum	12	Fair	Poor	Retain	Heritage tree
171	<i>Eucalyptus globulus</i>	Tasmanian blue gum	26	Fair	Poor	Remove	Heritage tree
172	<i>Eucalyptus globulus</i>	Tasmanian blue gum	20	Fair	Poor	Retain	Heritage tree
173	<i>Eucalyptus globulus</i>	Tasmanian blue gum	13	Fair	Poor	Retain	Heritage tree
174	<i>Eucalyptus globulus</i>	Tasmanian blue gum	23	Fair	Poor	Retain	Heritage tree
175	<i>Eucalyptus globulus</i>	Tasmanian blue gum	30	Dead	Dead	Retain	Heritage tree
176	<i>Eucalyptus globulus</i>	Tasmanian blue gum	15	Fair	Poor	Retain	Heritage tree
177	<i>Eucalyptus globulus</i>	Tasmanian blue gum	48	Fair	Poor	Remove	Heritage tree
178	<i>Eucalyptus globulus</i>	Tasmanian blue gum	28	Fair	Poor	Retain	Heritage tree
179	<i>Eucalyptus globulus</i>	Tasmanian blue gum	18	Fair	Poor	Retain	Heritage tree
180	<i>Eucalyptus globulus</i>	Tasmanian blue gum	19	Fair	Poor	Retain	Heritage tree
181	<i>Eucalyptus globulus</i>	Tasmanian blue gum	17	Fair	Poor	Retain	Heritage tree
182	<i>Eucalyptus globulus</i>	Tasmanian blue gum	12	Fair	Poor	Retain	Heritage tree
183	<i>Eucalyptus globulus</i>	Tasmanian blue gum	13	Fair	Poor	Retain	Heritage tree
184	<i>Eucalyptus globulus</i>	Tasmanian blue gum	16	Fair	Poor	Retain	Heritage tree
185	<i>Eucalyptus globulus</i>	Tasmanian blue gum	46	Fair	Poor	Retain	Heritage tree
186	<i>Eucalyptus globulus</i>	Tasmanian blue gum	18	Fair	Poor	Retain	Heritage tree
187	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Retain	Heritage tree
188	<i>Eucalyptus globulus</i>	Tasmanian blue gum	24	Fair	Poor	Retain	Heritage tree
189	<i>Eucalyptus globulus</i>	Tasmanian blue gum	36	Fair	Poor	Retain	Heritage tree
190	<i>Eucalyptus globulus</i>	Tasmanian blue gum	18				

Table A: Summary of Trees in the Tree Survey Area

Species Classification	Trees Within Survey Area	Heritage Trees to be Removed	Non-Protected Trees to be Removed	Heritage Trees to be Retained	Non-Protected Trees to be Retained
Trident maple (<i>Acer buergerianum</i>)					
Protected Heritage Tree	1	0		1	
Not protected	4		3		1
Japanese maple (<i>Acer palmatum</i>)					
Not protected	1		0		1
White Alder (<i>Alnus rhombifolia</i>)					
Protected Heritage Tree	1	0		1	
Silver birch (<i>Betula pendula</i>)					
Protected Heritage Tree	2	0		2	
Not protected	4		0		4
Deodar cedar (<i>Cedrus deodara</i>)					
Protected Heritage Tree	1	1		0	
Camphor tree (<i>Cinnamomum camphora</i>)					
Not protected	1		0		1
Blue gum eucalyptus (<i>Eucalyptus globulus</i>)					
Protected Heritage Tree	76	21		55	
Not protected	7		3		4
Willow-leaved peppermint (<i>Eucalyptus nicholii</i>)					
Protected Heritage Tree	1	1		0	
Silver dollar gum (<i>Eucalyptus polyanthemos</i>)					
Protected Heritage Tree	6	6		0	
Ginkgo (<i>Ginkgo biloba</i>)					
Not protected	1		0		1
Sweet gum (<i>Liquidambar styraciflua</i>)					
Protected Heritage Tree	2	0		2	
Southern magnolia (<i>Magnolia grandiflora</i>)					
Protected Heritage Tree	3	1		2	
Not protected	2		2		0
Mayten tree (<i>Maytenus boaria</i>)					
Protected Heritage Tree	2	2		0	
Not protected	2		2		0
Dawn redwood (<i>Metasequoia glyptostroboides</i>)					
Protected Heritage Tree	1	1		0	
Blue spruce (<i>Picea pungens</i>)					
Protected Heritage Tree	1	1		0	
Canary Island pine (<i>Pinus canariensis</i>)					
Protected Heritage Tree	5	5		0	
London plane (<i>Platanus x acerifolia</i>)					
Protected Heritage Tree	37	5		32	
Not protected	3		0		3

Table A: Summary of Trees in the Tree Survey Area

Species Classification	Trees Within Survey Area	Heritage Trees to be Removed	Non-Protected Trees to be Removed	Heritage Trees to be Retained	Non-Protected Trees to be Retained
Chinese Pistache (<i>Pistacia chinensis</i>)					
Not protected	1		1		0
Fremont cottonwood (<i>Populus fremontii</i>)					
Protected Heritage Tree	1	0		1	
Purple leaf plum (<i>Prunus cerasifera</i>)					
Protected Heritage Tree	1	0		1	
Not protected	1		0		1
Flowering cherry (<i>Prunus serrulata</i>)					
Protected Heritage Tree	1	1		0	
Not protected	1		1		0
Coast live oak (<i>Quercus agrifolia</i>)					
Protected Heritage Tree	11	0		11	
Not protected	1		0		1
Coast redwood (<i>Sequoia sempervirens</i>)					
Protected Heritage Tree	12	7		5	
Japanese zelkova (<i>Zelkova serrata</i>)					
Protected Heritage Tree	4	0		4	
Grand Total	198	52	12	117	17

Table B: Detailed Data for Trees on the San Bruno Recreation Center Project Site

Tree ID	Scientific Name	Common Name	Diameter (inches)	Health	Structure	Disposition	Protected Status	Notes
1	<i>Plantanus x acerifolia</i>	London plane	16	Good	Good	Retain	Heritage tree	
2	<i>Maytenus boaria</i>	Mayten tree	6	Good	Good	Remove	Not protected	
3	<i>Pinus canariensis</i>	Canary Island pine	13	Good	Good	Remove	Heritage tree	
4	<i>Maytenus boaria</i>	Mayten tree	9	Good	Good	Remove	Not protected	
5	<i>Pinus canariensis</i>	Canary Island pine	12	Good	Good	Remove	Heritage tree	
6	<i>Pinus canariensis</i>	Canary Island pine	20	Good	Good	Remove	Heritage tree	
7	<i>Pinus canariensis</i>	Canary Island pine	22	Good	Good	Remove	Heritage tree	
8	<i>Sequoia sempervirens</i>	Coast redwood	12	Good	Good	Remove	Heritage tree	
9	<i>Sequoia sempervirens</i>	Coast redwood	13	Good	Good	Remove	Heritage tree	
10	<i>Pinus canariensis</i>	Canary Island pine	13	Good	Good	Remove	Heritage tree	
11	<i>Sequoia sempervirens</i>	Coast redwood	11	Good	Good	Remove	Heritage tree	
12	<i>Sequoia sempervirens</i>	Coast redwood	24	Good	Good	Remove	Heritage tree	
13	<i>Sequoia sempervirens</i>	Coast redwood	23	Good	Good	Remove	Heritage tree	
14	<i>Sequoia sempervirens</i>	Coast redwood	44	Good	Good	Retain	Heritage tree	
15	<i>Maytenus boaria</i>	Mayten tree	12	Good	Good	Remove	Heritage tree	
16	<i>Maytenus boaria</i>	Mayten tree	13	Good	Good	Remove	Heritage tree	
17	<i>Eucalyptus nicholii</i>	Willow-leaved peppermint	39	Good	Good	Remove	Heritage tree	
18	<i>Prunus serrulata</i>	Flowering cherry	7	Good	Good	Remove	Not protected	
19	<i>Prunus serrulata</i>	Flowering cherry	11	Good	Good	Remove	Heritage tree	
20	<i>Plantanus x acerifolia</i>	London plane	11	Good	Good	Remove	Heritage tree	
21	<i>Quercus agrifolia</i>	Coast live oak	27	Good	Good	Retain	Heritage tree	
22	<i>Magnolia grandiflora</i>	Southern magnolia	9	Good	Good	Remove	Not protected	
23	<i>Pistachiachinense</i>	Chinese pistache	8	Good	Good	Remove	Not protected	
24	<i>Magnolia grandiflora</i>	Southern magnolia	24	Good	Good	Remove	Heritage tree	
25	<i>Picea pungens</i>	Blue spruce	12	Good	Good	Remove	Heritage tree	
26	<i>Cedrus deodara</i>	Deodar cedar	34	Good	Good	Remove	Heritage tree	
27	<i>Zelkova serrata</i>	Japanese zelkova	12	Good	Good	Retain	Heritage tree	
28	<i>Plantanus x acerifolia</i>	London plane	19	Good	Good	Retain	Heritage tree	
29	<i>Acer buergerianum</i>	Trident maple	6	Good	Good	Remove	Not protected	
30	<i>Acer buergerianum</i>	Trident maple	7	Fair	Fair	Remove	Not protected	Wound on trunk
31	<i>Acer buergerianum</i>	Trident maple	5	Good	Good	Remove	Not protected	
32	<i>Eucalyptus globulus</i>	Tasmanian blue gum	17	Fair	Poor	Retain	Heritage tree	Old wound on trunk
33	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Retain	Heritage tree	Large limbs

Table B: Detailed Data for Trees on the San Bruno Recreation Center Project Site

Tree ID	Scientific Name	Common Name	Diameter (inches)	Health	Structure	Disposition	Protected Status	Notes
34	<i>Eucalyptus globulus</i>	Tasmanian blue gum	49	Fair	Poor	Retain	Heritage tree	Leans
35	<i>Eucalyptus globulus</i>	Tasmanian blue gum	32	Fair	Poor	Retain	Heritage tree	Large limbs, two codominant stems
36	<i>Eucalyptus globulus</i>	Tasmanian blue gum	51	Fair	Poor	Retain	Heritage tree	Large limbs, three codominant stems
37	<i>Eucalyptus globulus</i>	Tasmanian blue gum	19	Fair	Poor	Retain	Heritage tree	Large crossed limbs
38	<i>Eucalyptus globulus</i>	Tasmanian blue gum	31	Fair	Poor	Retain	Heritage tree	Large limbs, trimmed in past
39	<i>Eucalyptus globulus</i>	Tasmanian blue gum	17	Fair	Poor	Retain	Heritage tree	Large limbs, trimmed in past
40	<i>Eucalyptus globulus</i>	Tasmanian blue gum	24	Fair	Poor	Retain	Heritage tree	Large limbs, trimmed in past
41	<i>Eucalyptus globulus</i>	Tasmanian blue gum	31	Fair	Poor	Retain	Heritage tree	Large limbs, trimmed in past
42	<i>Eucalyptus globulus</i>	Tasmanian blue gum	48	Fair	Poor	Retain	Heritage tree	Giant tree
43	<i>Plantanus x acerifolia</i>	London plane	19	Good	Good	Retain	Heritage tree	
44	<i>Plantanus x acerifolia</i>	London plane	14	Good	Good	Retain	Heritage tree	
45	<i>Magnolia grandiflora</i>	Southern magnolia	14	Good	Good	Retain	Heritage tree	
46	<i>Magnolia grandiflora</i>	Southern magnolia	13	Good	Good	Retain	Heritage tree	
47	<i>Acer buergerianum</i>	Trident maple	7	Fair	Fair	Retain	Not protected	Moderate canopy die back
48	<i>Plantanus x acerifolia</i>	London plane	8	Good	Good	Retain	Not protected	
49	<i>Plantanus x acerifolia</i>	London plane	11	Good	Good	Retain	Heritage tree	
50	<i>Plantanus x acerifolia</i>	London plane	10	Good	Good	Retain	Heritage tree	
51	<i>Plantanus x acerifolia</i>	London plane	11	Good	Good	Retain	Heritage tree	
52	<i>Plantanus x acerifolia</i>	London plane	9	Good	Good	Retain	Not protected	
53	<i>Plantanus x acerifolia</i>	London plane	12	Good	Good	Retain	Heritage tree	
54	<i>Prunus cerasifera</i>	Purple leaf plum	9	Good	Good	Retain	Not protected	
55	<i>Plantanus x acerifolia</i>	London plane	10	Good	Good	Retain	Heritage tree	
56	<i>Plantanus x acerifolia</i>	London plane	9	Good	Good	Retain	Not protected	
57	<i>Prunus cerasifera</i>	Purple leaf plum	10	Fair	Fair	Retain	Heritage tree	Rot in trunk
58	<i>Plantanus x acerifolia</i>	London plane	40	Good	Good	Retain	Heritage tree	
59	<i>Plantanus x acerifolia</i>	London plane	38	Good	Good	Retain	Heritage tree	
60	<i>Plantanus x acerifolia</i>	London plane	26	Good	Good	Retain	Heritage tree	
61	<i>Betula pendula</i>	Silver birch	10	Good	Good	Retain	Heritage tree	
62	<i>Betula pendula</i>	Silver birch	5	Good	Good	Retain	Not protected	
63	<i>Betula pendula</i>	Silver birch	5	Good	Good	Retain	Not protected	
64	<i>Betula pendula</i>	Silver birch	6	Good	Good	Retain	Not protected	

Table B: Detailed Data for Trees on the San Bruno Recreation Center Project Site

Tree ID	Scientific Name	Common Name	Diameter (inches)	Health	Structure	Disposition	Protected Status	Notes
65	<i>Betula pendula</i>	Silver birch	7	Good	Good	Retain	Not protected	
66	<i>Betula pendula</i>	Silver birch	10	Good	Good	Retain	Heritage tree	
67	<i>Plantanus x acerifolia</i>	London plane	30	Fair	Fair	Retain	Heritage tree	Cavities in trunk, history of limb failure
68	<i>Plantanus x acerifolia</i>	London plane	38	Good	Good	Retain	Heritage tree	
69	<i>Quercus agrifolia</i>	Coast live oak	31	Good	Good	Retain	Heritage tree	Natural setting
70	<i>Quercus agrifolia</i>	Coast live oak	53	Good	Good	Retain	Heritage tree	Natural setting
71	<i>Eucalyptus globulus</i>	Tasmanian blue gum	38	Good	Good	Retain	Heritage tree	Large limbs, good form
72	<i>Quercus agrifolia</i>	Coast live oak	20	Good	Good	Retain	Heritage tree	Natural setting
73	<i>Quercus agrifolia</i>	Coast live oak	32	Good	Good	Retain	Heritage tree	Ivy covered, in natural setting
74	<i>Quercus agrifolia</i>	Coast live oak	37	Good	Good	Retain	Heritage tree	Ivy covered, in natural setting
75	<i>Quercus agrifolia</i>	Coast live oak	16	Good	Good	Retain	Heritage tree	Ivy covered, in natural setting
76	<i>Quercus agrifolia</i>	Coast live oak	9	Good	Good	Retain	Heritage tree	
77	<i>Quercus agrifolia</i>	Coast live oak	8	Good	Good	Retain	Heritage tree	
78	<i>Quercus agrifolia</i>	Coast live oak	5	Good	Good	Retain	Not protected	
79	<i>Zelkova serrata</i>	Japanese zelkova	12	Good	Good	Retain	Heritage tree	
80	<i>Plantanus x acerifolia</i>	London plane	17	Fair	Fair	Retain	Heritage tree	Cavity in trunk
81	<i>Plantanus x acerifolia</i>	London plane	18	Good	Good	Retain	Heritage tree	
82	<i>Plantanus x acerifolia</i>	London plane	30	Good	Good	Retain	Heritage tree	
83	<i>Plantanus x acerifolia</i>	London plane	21	Good	Good	Retain	Heritage tree	
84	<i>Quercus agrifolia</i>	Coast live oak	6	Good	Fair	Retain	Heritage tree	Could use structural pruning
85	<i>Quercus agrifolia</i>	Coast live oak	6	Good	Fair	Retain	Heritage tree	Could use structural pruning
86	<i>Plantanus x acerifolia</i>	London plane	19	Good	Good	Retain	Heritage tree	
87	<i>Plantanus x acerifolia</i>	London plane	22	Good	Good	Retain	Heritage tree	
88	<i>Plantanus x acerifolia</i>	London plane	22	Good	Good	Retain	Heritage tree	
89	<i>Plantanus x acerifolia</i>	London plane	11	Good	Good	Retain	Heritage tree	
90	<i>Plantanus x acerifolia</i>	London plane	11	Fair	Fair	Retain	Heritage tree	Some canopy die back
91	<i>Zelkova serrata</i>	Japanese zelkova	16	Good	Good	Retain	Heritage tree	
92	<i>Zelkova serrata</i>	Japanese zelkova	12	Good	Good	Retain	Heritage tree	
93	<i>Acer palmatum</i>	Japanese maple	9	Good	Good	Retain	Not protected	Small multistem
94	<i>Sequoia sempervirens</i>	Coast redwood	52	Good	Good	Retain	Heritage tree	
95	<i>Populus fremontii</i>	Fremont cottonwood	44	Good	Fair	Retain	Heritage tree	Large limbs
96	<i>Liquidambar styraciflua</i>	Sweet gum	33	Good	Fair	Retain	Heritage tree	Large limbs

Table B: Detailed Data for Trees on the San Bruno Recreation Center Project Site

Tree ID	Scientific Name	Common Name	Diameter (inches)	Health	Structure	Disposition	Protected Status	Notes
97	<i>Plantanus x acerifolia</i>	London plane	20	Fair	Fair	Retain	Heritage tree	Some canopy die back
98	<i>Plantanus x acerifolia</i>	London plane	23	Fair	Fair	Retain	Heritage tree	Some canopy die back
99	<i>Plantanus x acerifolia</i>	London plane	21	Good	Good	Retain	Heritage tree	
100	<i>Plantanus x acerifolia</i>	London plane	40	Good	Good	Retain	Heritage tree	
101	<i>Metasequoia glyptostroboides</i>	Dawn redwood	15	Good	Good	Remove	Heritage tree	
102	<i>Sequoia sempervirens</i>	Coast redwood	30	Good	Good	Remove	Heritage tree	
103	<i>Sequoia sempervirens</i>	Coast redwood	16	Good	Good	Remove	Heritage tree	
104	<i>Sequoia sempervirens</i>	Coast redwood	59	Good	Good	Retain	Heritage tree	
105	<i>Plantanus x acerifolia</i>	London plane	32	Good	Good	Remove	Heritage tree	
106	<i>Plantanus x acerifolia</i>	London plane	16	Good	Good	Remove	Heritage tree	
107	<i>Plantanus x acerifolia</i>	London plane	21	Good	Good	Retain	Heritage tree	
108	<i>Plantanus x acerifolia</i>	London plane	23	Good	Good	Retain	Heritage tree	
109	<i>Plantanus x acerifolia</i>	London plane	21	Good	Good	Remove	Heritage tree	
110	<i>Plantanus x acerifolia</i>	London plane	10	Good	Good	Remove	Heritage tree	
111	<i>Plantanus x acerifolia</i>	London plane	16	Good	Good	Retain	Heritage tree	
112	<i>Plantanus x acerifolia</i>	London plane	14	Good	Good	Retain	Heritage tree	
113	<i>Plantanus x acerifolia</i>	London plane	18	Good	Good	Retain	Heritage tree	
114	<i>Cinnamomum camphora</i>	Camphor tree	8	Good	Good	Retain	Not protected	
115	<i>Alnus rhombifolia</i>	White alder	11	Good	Good	Retain	Heritage tree	
116	<i>Liquidambar styraciflua</i>	Sweet gum	32	Good	Good	Retain	Heritage tree	
117	<i>Sequoia sempervirens</i>	Coast redwood	16	Good	Good	Retain	Heritage tree	
118	<i>Sequoia sempervirens</i>	Coast redwood	31	Good	Good	Retain	Heritage tree	
119	<i>Acer buergerianum</i>	Trident maple	13	Fair	Fair	Retain	Heritage tree	Wound on trunk
120	<i>Ginkgo biloba</i>	Maidenhair tree	6	Good	Good	Retain	Not protected	
121	<i>Eucalyptus globulus</i>	Tasmanian blue gum	22	Fair	Poor	Remove	Heritage tree	Leans
122	<i>Eucalyptus globulus</i>	Tasmanian blue gum	22	Fair	Poor	Remove	Heritage tree	Stump sprout
123	<i>Eucalyptus globulus</i>	Tasmanian blue gum	18	Fair	Poor	Remove	Heritage tree	
124	<i>Eucalyptus globulus</i>	Tasmanian blue gum	20	Fair	Poor	Remove	Heritage tree	
125	<i>Eucalyptus globulus</i>	Tasmanian blue gum	8	Fair	Poor	Remove	Not protected	
126	<i>Eucalyptus globulus</i>	Tasmanian blue gum	6	Fair	Poor	Remove	Not protected	
127	<i>Eucalyptus globulus</i>	Tasmanian blue gum	21	Fair	Poor	Remove	Heritage tree	
128	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Remove	Heritage tree	Suppressed, leans
129	<i>Eucalyptus polyanthemons</i>	Red box	12	Fair	Poor	Remove	Heritage tree	Two trunks at base

Table B: Detailed Data for Trees on the San Bruno Recreation Center Project Site

Tree ID	Scientific Name	Common Name	Diameter (inches)	Health	Structure	Disposition	Protected Status	Notes
130	<i>Eucalyptus polyanthemons</i>	Red box	15	Fair	Poor	Remove	Heritage tree	Leans
131	<i>Eucalyptus polyanthemons</i>	Red box	18	Fair	Poor	Remove	Heritage tree	Suppressed, leans
132	<i>Eucalyptus polyanthemons</i>	Red box	23	Fair	Poor	Remove	Heritage tree	Large limbs, suppressed
133	<i>Eucalyptus polyanthemons</i>	Red box	18	Fair	Poor	Remove	Heritage tree	Suppressed, leans
134	<i>Eucalyptus polyanthemons</i>	Red box	14	Fair	Poor	Remove	Heritage tree	Suppressed, leans
135	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Retain	Heritage tree	Suppressed
136	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Retain	Heritage tree	Large limbs, asymmetric canopy, leans
137	<i>Eucalyptus globulus</i>	Tasmanian blue gum	36	Fair	Poor	Retain	Heritage tree	Large crossed limbs
138	<i>Eucalyptus globulus</i>	Tasmanian blue gum	50	Fair	Poor	Retain	Heritage tree	Large limbs
139	<i>Eucalyptus globulus</i>	Tasmanian blue gum	60	Fair	Poor	Retain	Heritage tree	Large limbs, leans
140	<i>Eucalyptus globulus</i>	Tasmanian blue gum	8	Fair	Poor	Remove	Not protected	Suppressed
141	<i>Eucalyptus globulus</i>	Tasmanian blue gum	38	Fair	Poor	Retain	Heritage tree	Asymmetric canopy
142	<i>Eucalyptus globulus</i>	Tasmanian blue gum	15	Fair	Poor	Retain	Heritage tree	Suppressed, rot in trunk
143	<i>Eucalyptus globulus</i>	Tasmanian blue gum	12	Fair	Poor	Retain	Heritage tree	Suppressed
144	<i>Eucalyptus globulus</i>	Tasmanian blue gum	64	Fair	Poor	Remove	Heritage tree	Large limbs
145	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Remove	Heritage tree	Suppressed, rot in trunk
146	<i>Eucalyptus globulus</i>	Tasmanian blue gum	20	Fair	Poor	Retain	Heritage tree	Suppressed, rot in trunk
147	<i>Eucalyptus globulus</i>	Tasmanian blue gum	48	Fair	Poor	Remove	Heritage tree	Large limbs
148	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Remove	Heritage tree	Asymmetric canopy
149	<i>Eucalyptus globulus</i>	Tasmanian blue gum	8	Dead	Dead	Retain	Not protected	Stump; Dead tree
150	<i>Eucalyptus globulus</i>	Tasmanian blue gum	30	Fair	Poor	Remove	Heritage tree	Large limbs
151	<i>Eucalyptus globulus</i>	Tasmanian blue gum	20	Fair	Poor	Retain	Heritage tree	Suppressed, rot in trunk
152	<i>Eucalyptus globulus</i>	Tasmanian blue gum	24	Fair	Poor	Retain	Heritage tree	Asymmetric canopy
153	<i>Eucalyptus globulus</i>	Tasmanian blue gum	28	Fair	Poor	Remove	Heritage tree	Rotten branch
154	<i>Eucalyptus globulus</i>	Tasmanian blue gum	16	Fair	Poor	Retain	Heritage tree	Suppressed
155	<i>Eucalyptus globulus</i>	Tasmanian blue gum	26	Fair	Poor	Remove	Heritage tree	Asymmetric canopy
156	<i>Eucalyptus globulus</i>	Tasmanian blue gum	16	Fair	Poor	Retain	Heritage tree	
157	<i>Eucalyptus globulus</i>	Tasmanian blue gum	25	Fair	Poor	Remove	Heritage tree	
158	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Retain	Heritage tree	Suppressed
159	<i>Eucalyptus globulus</i>	Tasmanian blue gum	30	Fair	Poor	Remove	Heritage tree	
160	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Retain	Heritage tree	Suppressed, rot in trunk
161	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Retain	Heritage tree	Suppressed, rot in trunk

Table B: Detailed Data for Trees on the San Bruno Recreation Center Project Site

Tree ID	Scientific Name	Common Name	Diameter (inches)	Health	Structure	Disposition	Protected Status	Notes
162	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Remove	Heritage tree	Large limbs, leans
163	<i>Eucalyptus globulus</i>	Tasmanian blue gum	30	Fair	Poor	Remove	Heritage tree	Large limbs
164	<i>Eucalyptus globulus</i>	Tasmanian blue gum	16	Fair	Poor	Retain	Heritage tree	Leans, rot in trunk
165	<i>Eucalyptus globulus</i>	Tasmanian blue gum	6	Fair	Poor	Retain	Not protected	Stump sprout
166	<i>Eucalyptus globulus</i>	Tasmanian blue gum	24	Fair	Poor	Remove	Heritage tree	
167	<i>Eucalyptus globulus</i>	Tasmanian blue gum	7	Dead	Dead	Retain	Not protected	Stump; Dead tree
168	<i>Eucalyptus globulus</i>	Tasmanian blue gum	26	Fair	Poor	Remove	Heritage tree	Large limbs
169	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Dead	Dead	Retain	Heritage tree	Stump
170	<i>Eucalyptus globulus</i>	Tasmanian blue gum	12	Fair	Poor	Retain	Heritage tree	Suppressed, rot in trunk
171	<i>Eucalyptus globulus</i>	Tasmanian blue gum	26	Fair	Poor	Remove	Heritage tree	Large limbs
172	<i>Eucalyptus globulus</i>	Tasmanian blue gum	20	Fair	Poor	Retain	Heritage tree	Large limbs
173	<i>Eucalyptus globulus</i>	Tasmanian blue gum	13	Fair	Poor	Retain	Heritage tree	Suppressed
174	<i>Eucalyptus globulus</i>	Tasmanian blue gum	23	Fair	Poor	Retain	Heritage tree	Asymmetric canopy
175	<i>Eucalyptus globulus</i>	Tasmanian blue gum	30	Dead	Dead	Retain	Heritage tree	Stump
176	<i>Eucalyptus globulus</i>	Tasmanian blue gum	15	Fair	Poor	Retain	Heritage tree	Leans
177	<i>Eucalyptus globulus</i>	Tasmanian blue gum	48	Fair	Poor	Remove	Heritage tree	Large limbs
178	<i>Eucalyptus globulus</i>	Tasmanian blue gum	28	Fair	Poor	Retain	Heritage tree	Large limbs, leans
179	<i>Eucalyptus globulus</i>	Tasmanian blue gum	18	Fair	Poor	Retain	Heritage tree	Suppressed
180	<i>Eucalyptus globulus</i>	Tasmanian blue gum	19	Fair	Poor	Retain	Heritage tree	Suppressed
181	<i>Eucalyptus globulus</i>	Tasmanian blue gum	17	Fair	Poor	Retain	Heritage tree	Stump sprout
182	<i>Eucalyptus globulus</i>	Tasmanian blue gum	12	Fair	Poor	Retain	Heritage tree	Leans
183	<i>Eucalyptus globulus</i>	Tasmanian blue gum	13	Fair	Poor	Retain	Heritage tree	Suppressed, stump sprout
184	<i>Eucalyptus globulus</i>	Tasmanian blue gum	16	Fair	Poor	Retain	Heritage tree	Suppressed
185	<i>Eucalyptus globulus</i>	Tasmanian blue gum	46	Fair	Poor	Retain	Heritage tree	Large limbs, rot in trunk
186	<i>Eucalyptus globulus</i>	Tasmanian blue gum	18	Fair	Poor	Retain	Heritage tree	
187	<i>Eucalyptus globulus</i>	Tasmanian blue gum	40	Fair	Poor	Retain	Heritage tree	Large limbs
188	<i>Eucalyptus globulus</i>	Tasmanian blue gum	24	Fair	Poor	Retain	Heritage tree	Large limbs, suppressed
189	<i>Eucalyptus globulus</i>	Tasmanian blue gum	36	Fair	Poor	Retain	Heritage tree	Large trunks with included bark, potentially hazardous
190	<i>Eucalyptus globulus</i>	Tasmanian blue gum	18	Fair	Poor	Retain	Heritage tree	
191	<i>Eucalyptus globulus</i>	Tasmanian blue gum	16	Fair	Poor	Retain	Heritage tree	Suppressed
192	<i>Eucalyptus globulus</i>	Tasmanian blue gum	20	Fair	Poor	Retain	Heritage tree	
193	<i>Eucalyptus globulus</i>	Tasmanian blue gum	60	Fair	Poor	Retain	Heritage tree	Large limbs

Table B: Detailed Data for Trees on the San Bruno Recreation Center Project Site

Tree ID	Scientific Name	Common Name	Diameter (inches)	Health	Structure	Disposition	Protected Status	Notes
194	<i>Eucalyptus globulus</i>	Tasmanian blue gum	14	Fair	Poor	Retain	Heritage tree	Suppressed
195	<i>Eucalyptus globulus</i>	Tasmanian blue gum	38	Fair	Poor	Retain	Heritage tree	Large limbs
196	<i>Eucalyptus globulus</i>	Tasmanian blue gum	28	Fair	Poor	Retain	Heritage tree	Large limbs
197	<i>Eucalyptus globulus</i>	Tasmanian blue gum	8	Fair	Poor	Retain	Not protected	Stump sprout
198	<i>Magnolia grandiflora</i>	Southern magnolia	8	Good	Good	Remove	Not protected	At front of Rec Center

ATTACHMENT A: TREE PROTECTION MEASURES

Tree Protection During Construction. 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. A TPZ fence should be established around the trees at a distance no less than 5 feet outside the dripline. In no case should the TPZ fence be less than 10 feet from the trunk of 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.

Tree Maintenance Prior to and During Construction, Canopy. 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 appropriately sized lateral 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. If accidental damage of tree trunks and limbs should occur during construction, a professional arborist should be consulted to properly address these issues. Tree trimming should not be allowed to be performed by construction personnel.

Tree Maintenance Prior to and During Construction, Root Zones. Tree roots often extend far beyond the canopy dripline. To reduce the root shock trees are likely to experience during construction, a watering schedule should be initiated a minimum of 30 days prior to the start of construction. During construction supplemental irrigation should be applied as needed based upon seasonal temperatures and soil moisture. An arborist can help determine the watering schedules.

If encroachment into the TPZ cannot be avoided, the design should consider special construction to allow the roots to breathe and obtain water. In situations where construction leads to excavation work within the dripline of trees, this work should be done with light equipment or by hand whenever possible to avoid tearing large diameter roots. All roots encountered during excavation should be cut with a sharp blade, taking care not to rip the roots. Excavation adjacent to any retained tree should not be permitted where damage to the large structural or fibrous matting root system will result. Root removal that jeopardizes the structural integrity or the health of the tree should be avoided. The existing ground surface within the TPZ should not be cut, filled, compacted, or paved. Root collars should not be buried when exposed roots are backfilled with native soil to a natural grade. Any root pruning required for construction purposes should receive the prior approval of and be supervised by LSA’s certified arborist or a consulting arborist retained for the supervision of tree work on site.

Methods or treatments used to minimize damage to nearby roots may include root pruning prior to grading, use of retaining walls with discontinuous footings avoiding large structural roots, use of paving sections that require a minimum amount of excavation, and the use of air and water pervious pavement. If pervious pavement cannot be used, then a root aeration system should be considered. There are many different methods and designs for venting impervious pavement for root aeration, and a professional arborist can assist the developer in finding the best solution.

Activities Prohibited Within Canopy Driplines. Heavy machinery should not be allowed to operate or park within the TPZ, nor should any excess soil, chemicals, debris, equipment, or other materials be dumped or stored within the TPZ or upslope of the protected trees. If it is necessary for heavy machinery to operate within the dripline of the preserved 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 3/4 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 shall not be placed within TPZs or against tree trunks.