Preliminary Arborist Report

Skylonda Fire Station
Woodside, CA

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Preliminary Arborist Report

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Introduction and Overview
Jeff Katz Architecture is designing new structures and surroundings for the Skylonda Fire Station in Woodside, CA. The site consists of an aging fire station and barracks as well as a large apparatus building. HortScience, Inc. was asked to prepare a **Preliminary Arborist Report** for the site as part of the mitigated negative declaration.

This report provides the following information:

1. An evaluation of the health and structural condition of the trees within the proposed project area based on a visual inspection from the ground.
2. A preliminary assessment of the development impacts to the trees based on the drawings provided by the client.
3. Guidelines for tree preservation during the design, construction and maintenance phases of development.

Assessment Methods
Trees were assessed on November 13, 2015. The assessment included all trees within and adjacent to proposed construction areas measuring 4" and greater in diameter. The assessment procedure consisted of the following steps:

1. Identifying the tree as to species;
2. Tagging each tree with a numerically coded metal tag and recording its location on a map;
3. Measuring the trunk diameter at a point 54" above grade;
4. Evaluating the health and structural condition using a scale of 1 – 5:
   - ***5*** - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
   - ***4*** - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
   - ***3*** - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
   - ***2*** - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
   - ***1*** - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
5. Rating the suitability for preservation as "high", "moderate" or "low". Suitability for preservation considers the health, age and structural condition of the tree species, and its potential to remain an asset to the site.

High:	Trees with good health and structural stability that have the potential for longevity at the site.
Moderate:	Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'high' category.
Low:	Trees in poor health or with significant structural defects that cannot be mitigated. Tree is 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 areas.

Description of Trees

Ninety-two (92) trees, representing 10 species, were evaluated (Table 1). The slope between Skyline Blvd. and existing buildings was densely planted with mostly native species, including coast redwood, Douglas fir, tanoak, coast live oak, and pacific madrone. Non-native species included Norway spruce and plum. Descriptions of each tree are found in the ***Tree Assessment*** and locations are plotted on the ***Tree Assessment Plan*** (see Exhibits).

Table 1. Condition ratings and frequency of occurrence of trees Skylonda Fire Station, Woodside, CA

		Condition			
Common Name	**Scientific Name**	Poor (1-2)	Fair (3)	Good (4-5)	**Total**
Pacific madrone	*Arbutus menziesii*	4	6	-	**10**
Incense cedar	*Calocedrus decurrens*	-	1	-	**1**
Tanoak	*Lithocarpus densiflorus*	1	4	1	**6**
Norway spruce	*Picea abies*	-	1	-	**1**
Monterey pine	*Pinus radiata*	-	-	2	**2**
Plum	*Prunus domestica*	1	-	-	**1**
Douglas fir	*Pseudotsuga menziesii*	5	17	10	**32**
Coast live oak	*Quercus agrifolia*	-	12	3	**15**
Coast redwood	*Sequoia sempervirens*	3	15	2	**20**
Giant sequoia	*Sequoiadendron giganteum*	-	1	3	**4**
Total		**14**	**57**	**21**	**92**
		15%	**62%**	**23%**	**100%**

The most frequent species evaluated was Douglas fir, with 32 trees (35 % of the population). Trees were young to mature with trunk diameter ranging from 2 to 40 inches, and an average size of 18 inches. Younger trees with trunks from 2 to18 inches were mostly in good (9 trees) and fair (8) condition; mature trees with trunk diameters from 21 to 40 inches were mostly in fair (9) and poor (4) condition. Trees in good condition had good form and structure and dense crowns. Trees in fair condition had slightly thin and/or asymmetrical crowns. Trees in poor condition (5 trees) had thin crowns and branch dieback throughout their crowns.

Douglas fir #80 was in fair condition with a significant lean north (Photo 1). The upper portion of the crown had corrected and was growing in a vertical orientation.

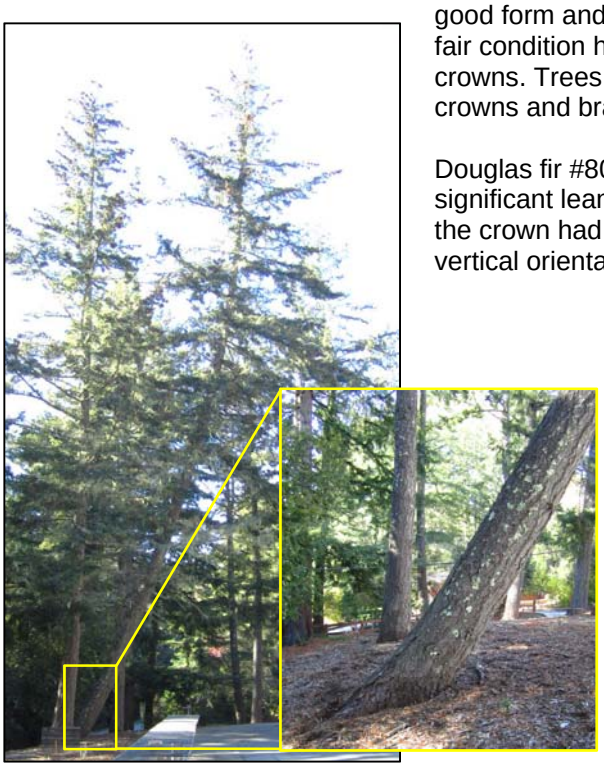

Photo 1: Tree #80 was mature in development with a significant lean from a previous partial failure at the base (inset). The tree had been growing this way for a long time, as evidenced by the top half of the tree that was growing in an upright direction.

The second most common species was coast redwood with 20 trees (22%). The average trunk size of single-trunk trees was 34 inches, with the largest tree having a 70-inch diameter trunk and the smallest tree a 4-inch trunk. Five trees had codominant or multiple trunks (Photo 2). A majority of coast redwoods (15 trees) were in fair condition with slightly thin crowns due to drought stress. Several trees had been significantly pruned on one side due to overhead utilities, including #31, 37, 55, and 66; trees #55 and 63 were completely branchless on one side. Only two trees were in good condition: #83 and 88 (44" and 19", respectively). Three trees were in poor condition with very thin crowns and poor structure.

Fifteen (15) coast live oaks (16%) were evaluated at the site. Trees were young to mature, with trunk diameters from 6 to 31 inches. The average size for single-trunk trees was 14 inches. Most trees (12 trees) were in fair condition with fair form and structure; three trees were in good condition with dense crowns and good form. The two largest oaks – #22 (27") and 42 (31") – were located adjacent to the drive aisle and were surrounded by asphalt. Both trees were in fair condition with fair structure and moderate vigor. On tree #22, a *Ganoderma* conk (fruiting body of decay fungus) was located on the stump of a removed stem, an indication of internal decay (Photo 3). Tree #42 had multiple trunk wounds and good form.

Photo 2 (left)**:** Tree #82 had two trunks (55" and 40") arising from near the base of the tree. The tree was in fair condition with a slightly thin crown.

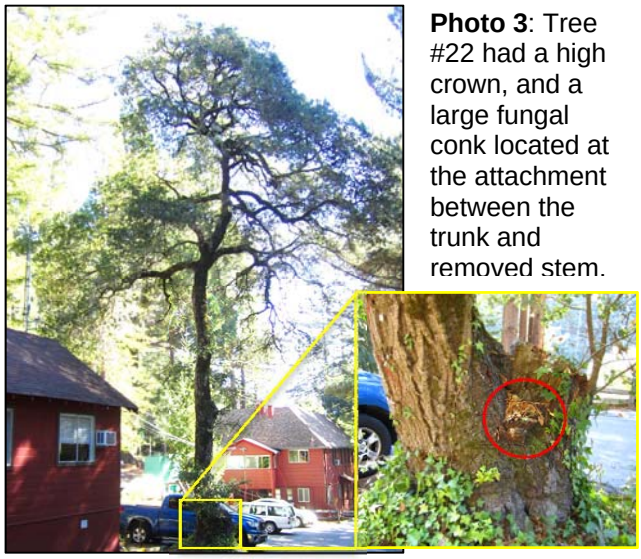

Photo 3: Tree #22 had a high crown, and a large fungal conk located at the attachment between the trunk and removed stem.

Ten (10) Pacific madrones (11%) were evaluated at the site. Trees were in fair (6 trees) and poor (4 trees) condition and ranged from 4 to 13 inches in diameter. Most trees had poor form and small crowns, and many had been topped for overhead utilities.

The remaining species were represented by six or fewer trees and included the following:

- Six tanoaks – one good, four fair, and one in poor condition;
- Four giant sequoias in good (3 trees) and fair condition;
- Two Monterey pines in good condition;
- One each of incense cedar and Norway spruce in fair condition;
- One plum in poor condition.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to provide greater assurance they survive development impacts, adapt to a new environment, and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. Evaluation of suitability for preservation considers several factors:

- **Tree health**
  Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees.

- **Structural integrity**
  Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. Coast live oak #22, with a fungal fruiting body at the base of the trunk, has a higher than average probability for failure.

- **Species response**
  There is a wide variation in the response of individual species to construction impacts and changes in the environment. In general, coast redwood is relatively tolerant of construction impacts and site changes while Monterey pine is relatively sensitive.

- **Tree age and longevity**
  Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.

- **Invasiveness**
  Species that spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (http://www.cal-ipc.org/paf/) lists species identified as being invasive. Woodside is part of the Central West Floristic Province. None of the trees evaluated at the fire station were considered invasive.

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment. Table 2 (next page) provides a summary of suitability ratings. Suitability ratings for individual trees are provided in the ***Tree Assessment*** (see attachments).

We consider trees with high suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Table 2: Tree suitability for preservation
Skylonda Fire Station, Woodside, CA

High	These are trees with good health and structural stability that have the potential for longevity at the site. Twelve (12) trees were of high suitability for preservation, including four Douglas firs, three giant sequoias, two each of coast live oak and coast redwood, and one tanoak.
Moderate	Trees in this category have fair health and/or structural defects that may be abated with treatment. These trees require more intense management and monitoring, and may have shorter life-spans than those in the 'high' category. Fifty (50) trees evaluated at the site were included in this category, including 21 Douglas firs, 14 coast redwoods, eight coast live oaks, two each of Monterey pine and tanoak, and one each of incense cedar, Norway spruce, and Pacific madrone.
Low	Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Thirty (30) trees were of low suitability for preservation, including nine Pacific madrones, seven Douglas firs, five coast live oaks, four coast redwoods, three tanoaks, and one each of giant sequoia and plum.

Preliminary Evaluation of Impacts and Recommendations

Appropriate tree retention develops a practical match between the location and intensity of construction activities and the quality and health of trees. The ***Tree Assessment*** was the reference point for tree health and condition. I referred to the Grading Plan (11/4/15) provided by the client to estimate the impacts to trees from the proposed changes. Plans are in the preliminary stage, therefore the following tree protection guidelines can only be considered preliminary. In order for HortScience, Inc. to provide specific tree protection guidelines, the client must provide finalized site plans including grading, utility, and landscape information.

The plan proposes to demolish existing structures and construct new buildings for the fire station; construct a new driveway leading directly from Skylonda Blvd. to the apparatus building; and improve existing or construct new onsite infrastructure such as repaving, constructing retaining walls, and installing new utilities. Surveyed trunk locations were included on plans.

The most significant impacts to trees would be associated with construction of the new buildings and the driveway to Skyline Blvd. In those areas, trees would be directly impacted by construction activities and cannot be retained.

Trees adjacent to construction will experience root loss during excavation for and construction of curbs, retaining walls, filtration areas, and utilities. Impacts to trees include the following.

- Coast redwood #31 will experience root impacts or loss with construction of the 8" modified curb proposed 8' from the tree. Following excavation procedures in the *Tree Preservation Guidelines* (page 7) can reduce damage to roots.

- Similarly, Pacific madrone #28, located within 5' of the driveway will experience root impacts; however, because this tree is smaller, fewer and smaller roots will be affected.
- Douglas firs #74, 75, 80, and 81 roots will be impacted by excavation for nearby curb and gutter.
- Excavation/installation of a septic leach field will impact roots of Douglas firs #77 and 78.
- A retaining wall proposed for the south side of the driveway from Alice's Restaurant will impact 70" coast redwood #92 and coast live oaks along the driveway. In particular, construction of the continuous footing will likely sever significant roots of tree #92. I recommend carefully excavating within 10 of trees to locate significant roots to be preserved and installing a non-continuous footing around these trees to preserve roots.

Many trees within the densely planted area south of Skyline Blvd. will not be impacted by construction activities, and, while some are in poor condition or have low suitability for preservation, the trees are in a low-use area and will be retained.

A storm drain is proposed below the slope on which five Douglas firs are growing (#48-52). The slope is unstable, and trenching may further destabilize the slope. If a retaining wall is built to support the slope, then these trees must be removed. However, slope-stabilization is not in the scope of work, so trees #48-52 will be retained for the time being.

Douglas fir #80 has a significant but corrected lean north. If the tree were to fail at the base, I estimate the existing apparatus building is within the fall zone. The vertical orientation of the upper portion of the tree indicates the tree developed with the lean and the lean has been present for some time. I do not believe tree failure is imminent; however, a tree with a significant lean has a higher likelihood of failure than one that is growing upright. The decision as to how much risk is acceptable at the site can only be made by the property owners. For the purpose of this report, I recommend preservation of tree #80 unless owners decide otherwise.

Based on my evaluation of the plans, 10 trees are recommended for removal (Table 3).

Table 3: Trees recommended for removal
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Tree #	Species	Diameter	Reason for removal
19	Coast redwood	21	Grading; new retaining wall N. of tree
21	Douglas fir	6	Within new parking lot
22	Coast live oak	27	Within new filtration area
23	Douglas fir	15	Within new driveway to Skyline Blvd.
24	Pacific madrone	11	Within new driveway to Skyline Blvd.
25	Tanoak	14	Within new driveway to Skyline Blvd.
26	Pacific madrone	5	Within new driveway to Skyline Blvd.
27	Pacific madrone	10	Within new driveway to Skyline Blvd.
42	Coast live oak	31	Within new driveway to apparatus bay
89	Plum	10	In decline

Of the trees recommended for removal, only Douglas firs #21 and 23 were in good condition; the remaining trees were in fair (4 trees) and poor (4 trees) conditions. Eighty-two (82) trees were identified for preservation.

Protecting trees prior to demolition and during construction will be critical. Tree protection instructions are located in the **Tree Preservation Guidelines**.

Tree Preservation Guidelines

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. Impacts can be minimized by coordinating any construction activities inside the **TREE PROTECTION ZONE**.

The following recommendations will help reduce impacts to trees from development and maintain and improve their health and vitality through the clearing, grading and construction phases.

Design recommendations

1. Design the septic leach field so excavation occurs no closer than 10' of trees #74 and 75. To maintain this distance, underground structures may need to be 12 or more feet from trees to account for excavation limits.
2. Anticipate constructing a non-continuous footing near tree #92 and coast live oaks for the retaining wall proposed south of the driveway from Alice's Restaurant.
3. Any plan changes affecting trees should be reviewed by the Consulting Arborist with regard to tree impacts. These include, but are not limited to, improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans and demolition plans.
4. A **TREE PROTECTION ZONE** shall be established around trees to be preserved. No grading, excavation, construction or storage of materials shall occur within that zone. For design purposes, the **TPZ** shall extend to the dripline, or, where hardscape is present, to the edge of concrete/asphalt.
5. **Tree Preservation Guidelines**, prepared by the Consulting Arborist, should be included on all plans.
6. Underground services including utilities, sub-drains, water or sewer shall be routed around the **TREE PROTECTION ZONE**. Where encroachment cannot be avoided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury.
7. Irrigation systems must be designed so that no trenching will occur within the **TREE PROTECTION ZONE**.

Pre-construction treatments and recommendations

1. The demolition contractor shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.
2. Fence trees identified for preservation to completely enclose the **TREE PROTECTION ZONE** prior to demolition, grubbing, or grading. Multiple of trees can be grouped together. The goal is to prevent soil compaction from vehicles, machinery, and materials storage, and to prevent damage to trunks and branches from incidental contact.
3. Fences shall be 6 ft. chain link or equivalent as approved by the Town of Woodside. Fences are to remain until all construction is completed.
4. Trees to be preserved may require pruning to provide construction clearance. All pruning shall be completed by a Certified Arborist or Tree Worker. Pruning shall

adhere to the latest edition of the ANSI Z133 and A300 standards as well as the *Best Management Practices -- Tree Pruning* published by the International Society of Arboriculture.

5. Structures and underground features to be removed within the **TREE PROTECTION ZONE** shall use the smallest equipment, and operate from outside the **TREE PROTECTION ZONE**. The consultant shall be on-site during all operations within the **TREE PROTECTION ZONE** to monitor demolition activity.

Recommendations for tree protection during construction

1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.
2. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission from/discussion with the Consulting Arborist.
3. Any demolition or excavation within the **TPZ** or other work that is expected to encounter tree roots should be approved and monitored by the Consulting Arborist.
4. Equipment used to excavate within the TPZ shall be located outside **TREE PROTECTION ZONES** and work parallel to trees roots to avoid tearing roots. Any roots requiring removal shall be pruned and not torn.
5. Roots shall be cut by manually digging a trench and cutting exposed roots with a sharp saw. The Consulting Arborist will identify where root pruning is required.
6. Exposed roots shall be covered by burlap and kept moist to avoid desiccation.
7. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
8. Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist or Certified Tree Worker and not by construction personnel.

Maintenance of impacted trees

Trees preserved at the Skylonda Fire Station will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. In particular, coast redwoods that experience root loss, such as #31 and 92, will require supplemental irrigation for a minimum of two years after project completion.

Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority. As trees age, the likelihood of branches or entire trees failing will increase. Therefore, annual inspection for hazard potential is recommended.

If you have any questions regarding my observations or recommendations, please contact me.

HortScience, Inc.

Deanne Ecklund
ISA Certified Arborist WE9067-A

Exhibits: ***Tree Assessment***
Tree Assessment Plan

Exhibits

Tree Assessment
Tree Assessment Plan

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Tree Assessment

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Tree No.	Species	Trunk Diameter (in.)	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
1	Coast live oak	10	4	High	Codominant trunks at 5'; high, narrow crown; dense crown.
2	Coast live oak	16	3	Moderate	Partial failure at base; corrected lean east; asymmetrical crown; branches lower on south.
3	Norway spruce	26	3	Moderate	Good form and structure; thin crown; lower branch dieback.
4	Coast live oak	8	3	Low	Codominant trunks at 6'; topped for overhead utilities; asymmetrical crown south.
5	Coast live oak	7,7,5	3	Low	Multiple trunks at base; south stem leans south; beneath overhead utilities; slightly thin crown.
6	Coast live oak	15,8	3	Low	Codominant trunks at base and 4'; fair form and structure; topped for overhead utilities.
7	Coast redwood	35	3	Moderate	Thinning crown; one-sided form due to adjacent tree #8; raised for overhead utilities.
8	Douglas fir	40	3	Moderate	Slightly thin crown; no branches on south to 60'.
9	Douglas fir	7	4	High	Good form and structure; crowded by adjacent trees; good young tree.
10	Douglas fir	10	4	High	Good form and structure; crowded by adjacent trees; good young tree.
11	Tanoak	7	4	High	Crook in trunk; good form; dense crown.
12	Coast live oak	9,7	4	Moderate	Codominant trunks at 1'; asymmetrical form; crowded by tree to north; dense crown.
13	Coast live oak	8	4	High	Crooks in trunk; good form; dense crown.
14	Giant sequoia	75	4	High	Good form and structure; slightly thin crown; lower branch dieback.
15	Coast redwood	7	2	Low	Thin crown; top 4' dead.
16	Incense cedar	36	3	Moderate	Small high crown; no branches on south to 50'.
17	Giant sequoia	70	4	High	Good form and structure; dense crown; raised on south for overhead utilities.
18	Douglas fir	7	4	Moderate	Good form and structure; good young tree; beneath canopy of #17.
19	Coast redwood	21	2	Low	Very thin crown; few branches on north.
20	Coast redwood	45	3	Moderate	Good form and structure; slightly thin crown; at southeast corner of Office and edge of walkway.
21	Douglas fir	6	4	High	Slight bend in lower trunk; good form and structure; dense crown; near elect. cabinet.
22	Coast live oak	27	3	Moderate	Surrounded by asphalt; codominant stem removed at 4'; decay/*Ganoderma* on stump and at attachment; high crown.

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Tree No.	Species	Trunk Diameter (in.)	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
23	Douglas fir	15	4	Moderate	Dense crown; crowded form.
24	Pacific madrone	11	3	Low	Removed stem and cavities at base; poor form and structure; high, thin crown.
25	Tanoak	14	3	Low	Corrected lean north; dense crown; topped for overhead utilities.
26	Pacific madrone	5	2	Low	Topped for overhead utilities; small crown.
27	Pacific madrone	10	2	Low	Topped for overhead utilities; small crown.
28	Pacific madrone	13	3	Low	Significant lean north over Skyline; base outside of dripline; slightly thin crown; twig dieback.
29	Douglas fir	2	4	Moderate	Good form and structure; good young tree; beneath communication lines.
30	Pacific madrone	11	2	Low	Topped for overhead utilities; one-sided form.
31	Coast redwood	47,27	3	Moderate	Codominant trunks at 3' and at 8'; 3 trunks; thin crown; no branches on north to 60'; south of overhead utilities.
32	Pacific madrone	13	3	Low	Stem removed at base; decay in stump; small, high crown; bent top.
33	Tanoak	12,10	3	Moderate	Codominant trunks at base; wound on 12" stem from 4' to 10'; dense crown; asymmetrical form.
34	Coast redwood	60	3	Moderate	Codominant trunks at 7'; slightly thin crown.
35	Pacific madrone	4	2	Low	Twisted form; small crown; beneath overhead utilities.
36	Coast live oak	12	3	Moderate	Crown bows north over Skyline; dense crown.
37	Coast redwood	13	3	Moderate	Thin crown; pruned on south for overhead utilities.
38	Coast redwood	9	2	Low	Lost central leader; slightly thin crown.
39	Coast redwood	18,16	3	Moderate	Codominant trunks at base; slightly thin crown.
40	Pacific madrone	11	3	Low	Twisted trunk; poor form.
41	Coast redwood	40	3	Moderate	Good form and structure; slightly thin crown.
42	Coast live oak	31	3	Moderate	Surrounded by asphalt; trunk wounds with good response growth; rib on north side of trunk; good form.
43	Tanoak	8	3	Moderate	Trunk fissures; wound at 2'; dense crown; some dieback.
44	Tanoak	11,9	2	Low	Codominant trunks at base; 9" stem dead; trunk fissures; *Annulohypoxylon* on trunk.
45	Pacific madrone	20,13	3	Moderate	Codominant trunks at base and 6'; cavity at base of 20" stem; fair form; slightly thin crown.
46	Coast redwood	34,25,21	3	Moderate	Codominant trunks at base and 2'; slightly thin crown; lower branch dieback.

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Tree No.	Species	Trunk Diameter (in.)	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
47	Pacific madrone	18,11	3	Low	Codominant trunks at base; 11" stem topped for overhead utilities; trunk wound on 18" stem with good response growth; leans northeast; base outside of dripline; lower limb dieback.
48	Douglas fir	21	2	Low	Thin crown; lower branch dieback; gas tank south of base.
49	Douglas fir	23	3	Moderate	Slightly thin crown; good form and structure.
50	Douglas fir	14	3	Moderate	Slightly thin crown; good form and structure.
51	Douglas fir	24	3	Moderate	Small slightly thin crown; crowded by adjacent trees; tree #52 leans into crown.
52	Douglas fir	22	2	Low	Soil failure on west; base outside of dripline; leans east into tree #51.
53	Tanoak	11,9	3	Low	Codominant trunks at 2' with narrow attachment; dense crown; topped for overhead utilities.
54	Douglas fir	6	3	Moderate	Good form and structure; slightly thin crown.
55	Coast redwood	65	3	Low	Codominant trunks at 7'; third stem removed at 7'; pruned on north for Utilities; no branches on north; thin crown.
56	Douglas fir	13	3	Moderate	Asymmetrical crown; dense crown.
57	Coast redwood	),28,17,16,15	3	Moderate	Multiple attachments at base; thin crown; lower branch dieback.
58	Douglas fir	16	3	Moderate	Good form and structure; thin crown.
59	Douglas fir	24	3	Moderate	Good form and structure; slightly thin crown.
60	Coast redwood	4	3	Moderate	Good form and structure; slightly chlorotic.
61	Douglas fir	15	2	Low	Corrected lean north; very thin crown; lower branch dieback.
62	Coast live oak	6	3	Moderate	Codominant trunks removed at base; codominant trunks at 5'; small crown.
63	Coast redwood	49	3	Moderate	No branches on southwest over overhead utilities to 65'; slightly thin crown.
64	Douglas fir	17	3	Moderate	Slightly thin crown; lower branch dieback.
65	Douglas fir	9	4	High	Good form and structure; slightly thin crown; good young tree.
66	Coast live oak	23,15,12	3	Low	Multiple trunks at base and codominant trunks at 3' with narrow attachments; fair form and structure; trunk wound with decay at 11'; high crown.
67	Douglas fir	40	3	Moderate	Slightly thin crown; lower branch dieback.
68	Douglas fir	18	4	Moderate	Asymmetrical crown; crowded and shaded on north by #67.
69	Coast live oak	6	3	Moderate	Trunk bows then swoops up; on top of failing slope.
70	Douglas fir	12	3	Moderate	Asymmetrical crown; shaded on north.

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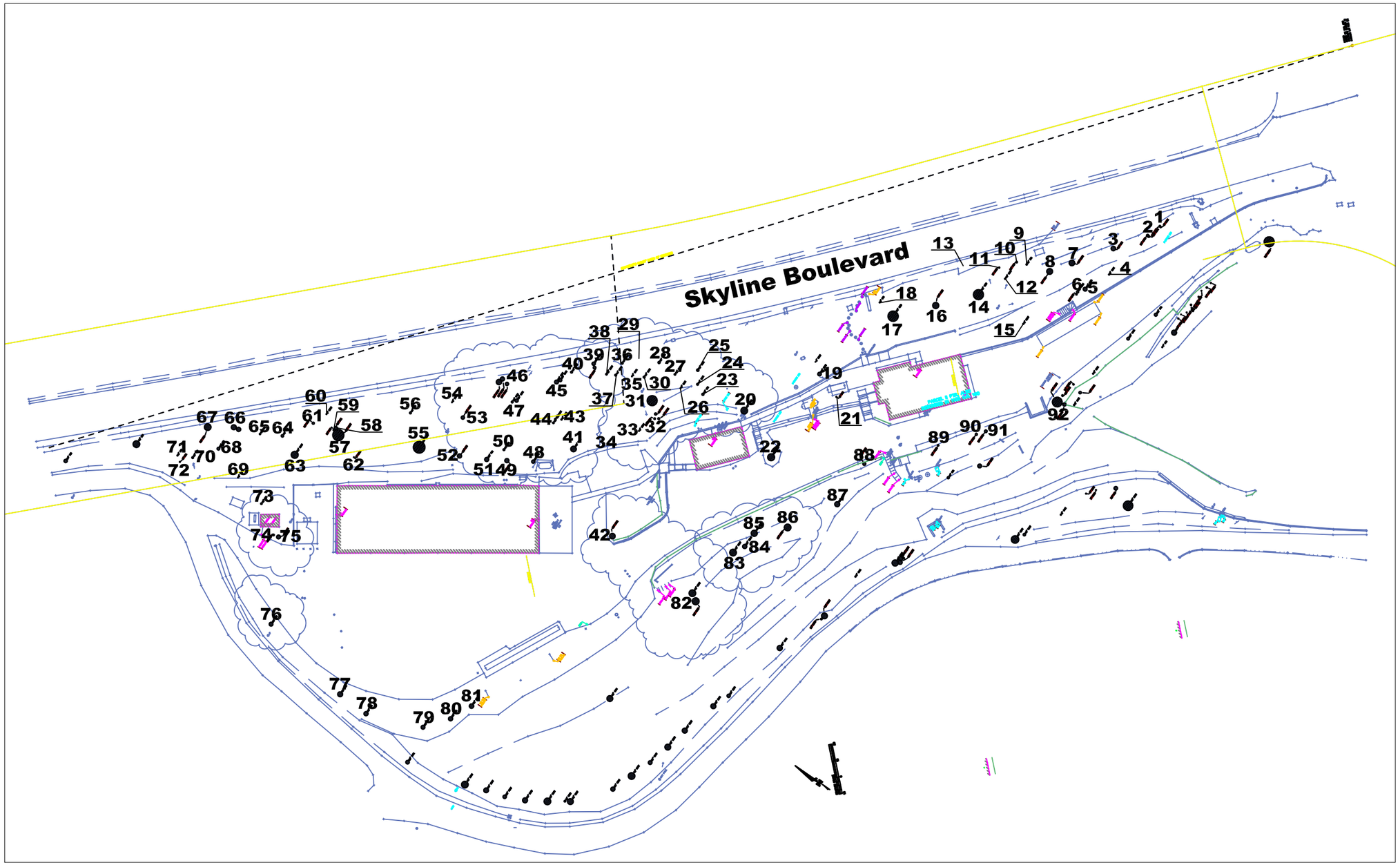
Tree No.	Species	Trunk Diameter (in.)	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
71	Douglas fir	8	3	Moderate	Small crown; suppressed.
72	Douglas fir	16	4	Moderate	Good form and structure; slightly crowded on northeast.
73	Monterey pine	10	4	Moderate	Minor trunk swoop; slightly thin crown; good form and structure.
74	Douglas fir	12	3	Moderate	Very close to #75; asymmetrical crown.
75	Douglas fir	25	4	Moderate	Good form and structure; small structure to northeast and gas tank to south.
76	Douglas fir	25	3	Low	Topped for overhead utilities; poor form and structure.
77	Douglas fir	30	3	Moderate	Slightly thin, asymmetrical crown; branches removed on north 50'.
78	Douglas fir	23	2	Low	Very thin crown; twig and branch dieback; history of branch failure.
79	Douglas fir	24	2	Low	Very thin crown; branch dieback.
80	Douglas fir	27	3	Low	Corrected lean north over paved area; base outside of dripline.
81	Douglas fir	27	3	Moderate	Good form and structure; slightly thin crown.
82	Coast redwood	55,40	3	Moderate	Codominant trunks at 3'; slightly thin crown.
83	Coast redwood	44	4	High	Good form and structure; slightly thin asymmetrical crown; crowded by adjacent trees.
84	Coast redwood	28	3	Moderate	Thin, asymmetrical crown; crowded.
85	Giant sequoia	38	4	High	Good form and structure; slightly thin crown.
86	Giant sequoia	33	3	Low	Thin crown; lost central leader.
87	Monterey pine	35	4	Moderate	Good form and structure; history of branch failure in lower crown; slightly thin.
88	Coast redwood	19	4	High	Good form and structure; slightly thin crown.
89	Plum	10	2	Low	Codominant trunks at 7'; north stem dead; thin crown; in decline.
90	Coast live oak	16	3	Moderate	Crooked trunk; small, high crown.
91	Coast live oak	15,10	3	Moderate	Codominant trunks at 3' and 6'; high crown; fair form and structure.
92	Coast redwood	70	3	Moderate	Codominant trunks at 25' and high in crown; slightly thin crown; lifting asphalt.

Tree Assessment Plan



Skylonda Fire Station
17290 Skyline Boulevard
Woodside, CA

Prepared for:
Jeff Katz Architecture
San Diego, CA

November 2015

No Scale

Notes:
Base map provided by:
Michael Baker International

Numbered tree locations
are approximate.

HORT SCIENCE

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