CDG
CANNON
DESIGN
GROUP

ARCHITECTURE PLANNING URBAN DESIGN

November 13, 2013

Ms. Suzanne Avila
Community Development Department
Town of Los Gatos
110 E. Main Street
Los Gatos, CA 95031

RE: 339-341 Bella Vista Avenue

Dear Suzanne:

I reviewed the drawings, and visited the site. My comments and recommendations follow.

Neighborhood Context

The site is wide but shallow, very steeply sloped, and one of the few homes in the area located on the west side of Bella Vista Avenue. Homes across Bella Vista are a mix of one and two stories designed in traditional styles. Traditionally designed multifamily units are located at the base of the site, and are largely buffered from this site by heavy hillside landscaping. Photos of the site and surrounding neighborhood are shown on the following page.

The site with the proposed structure shown

EXHIBIT 8

700 LARKSPUR LANDING CIRCLE . SUITE 199 . LARKSPUR . CA . 94939

TEL: 415.331.3795
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The site

View along Bella Vista Avenue: site to the left

View down the site to multifamily units below

View down the site to multifamily units below

Nearby house across Bella Vista Avenue

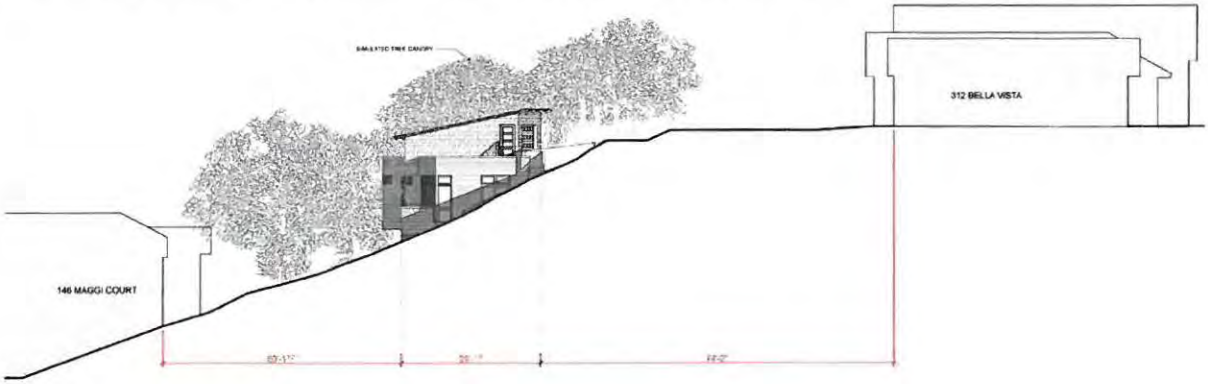
Nearby house across Bella Vista Avenue

Nearby house across Bella Vista Avenue

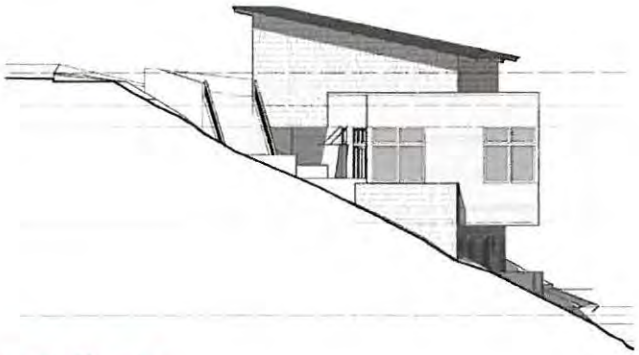
Nearby houses across Bella Vista Avenue

Issues and Recommendations

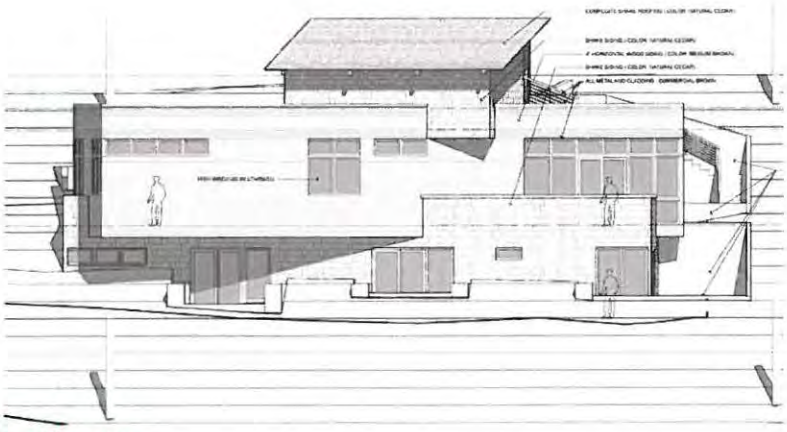
The house is modern in form, materials and details, which might not fit comfortably into some of the Town's traditional neighborhoods. However, the proposed house is well designed, and set well down the slope from the street, resulting in limited visual exposure from the street and nearby homes. Materials are of high quality, and should fit comfortably on this wooded slope.



Section through Bella Vista Avenue looking north

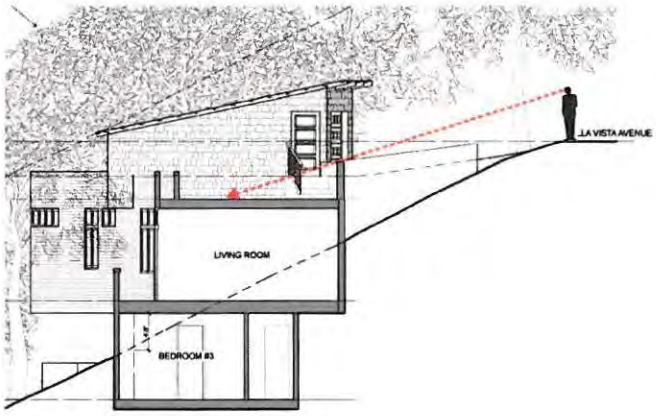


North Elevation



West Elevation

I have only one minor concern. The upper living level roofs will be visible from Bella Vista Avenue (see section diagram below). I saw many people walking along the west edge of the pavement during my site visit since there are no sidewalks in this area. The roof on the southern portion of the house is proposed to be covered with stone paving, the roof over the northern portion is proposed to have a gravel roof. The plans and other drawings show planters at the edge intended to contain landscaping to shield views to the roof. However, it is generally unwise to rely on future owners to provide or maintain adequate landscape buffers as the sole mitigation measure. My recommendation would be to provide more visually suitable paving on this portion of the roof.



Suzanne, please let me know if you have any specific questions or need any other specific issues addressed.

Sincerely,

CANNON DESIGN GROUP

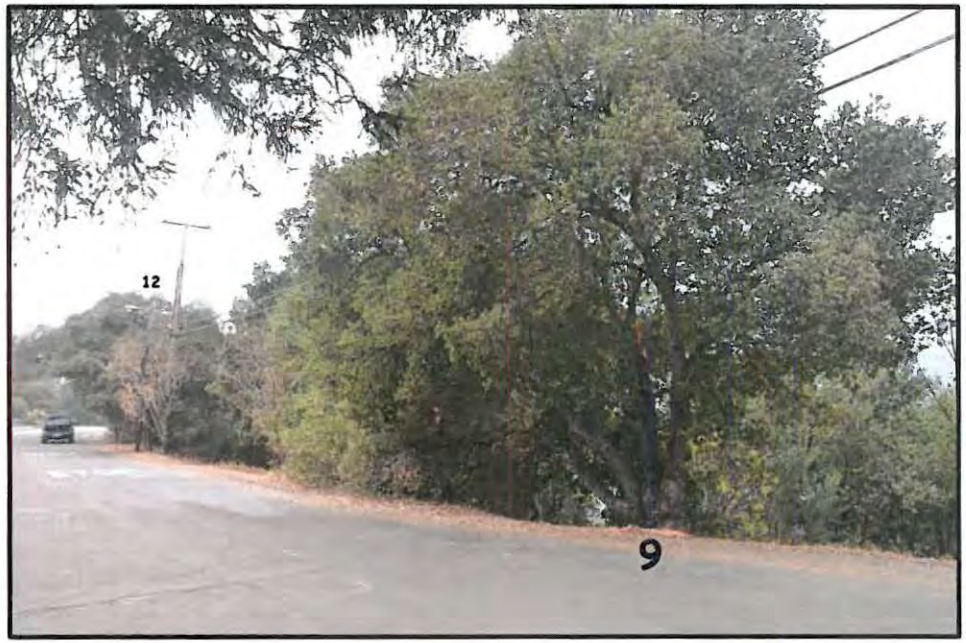
Larry L. Cannon
President

Deborah Ellis, MS

Consulting Arborist & Horticulturist

Service since 1984

ARBORIST REPORT



341 Bella Vista Avenue
Los Gatos, California

Prepared for:

Suzanne Avila
Town of Los Gatos Community Planning Department
110 E. Main Street
Los Gatos, CA 95031

Prepared by:

Deborah Ellis, MS.

Consulting Arborist & Horticulturist

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OCTOBER 28, 2013

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EXHIBIT 9

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Deborah Ellis, MS
Consulting Arborist & Horticulturist
Service since 1984

Table of Contents

Cover photo: Looking along the top of the project site north to south from Bella Vista Road. **Coast live oak #9** in the foreground at right, with **coast live oak #12** in the background at left. All photos in this report were taken by D. Ellis on October 24, 2013.

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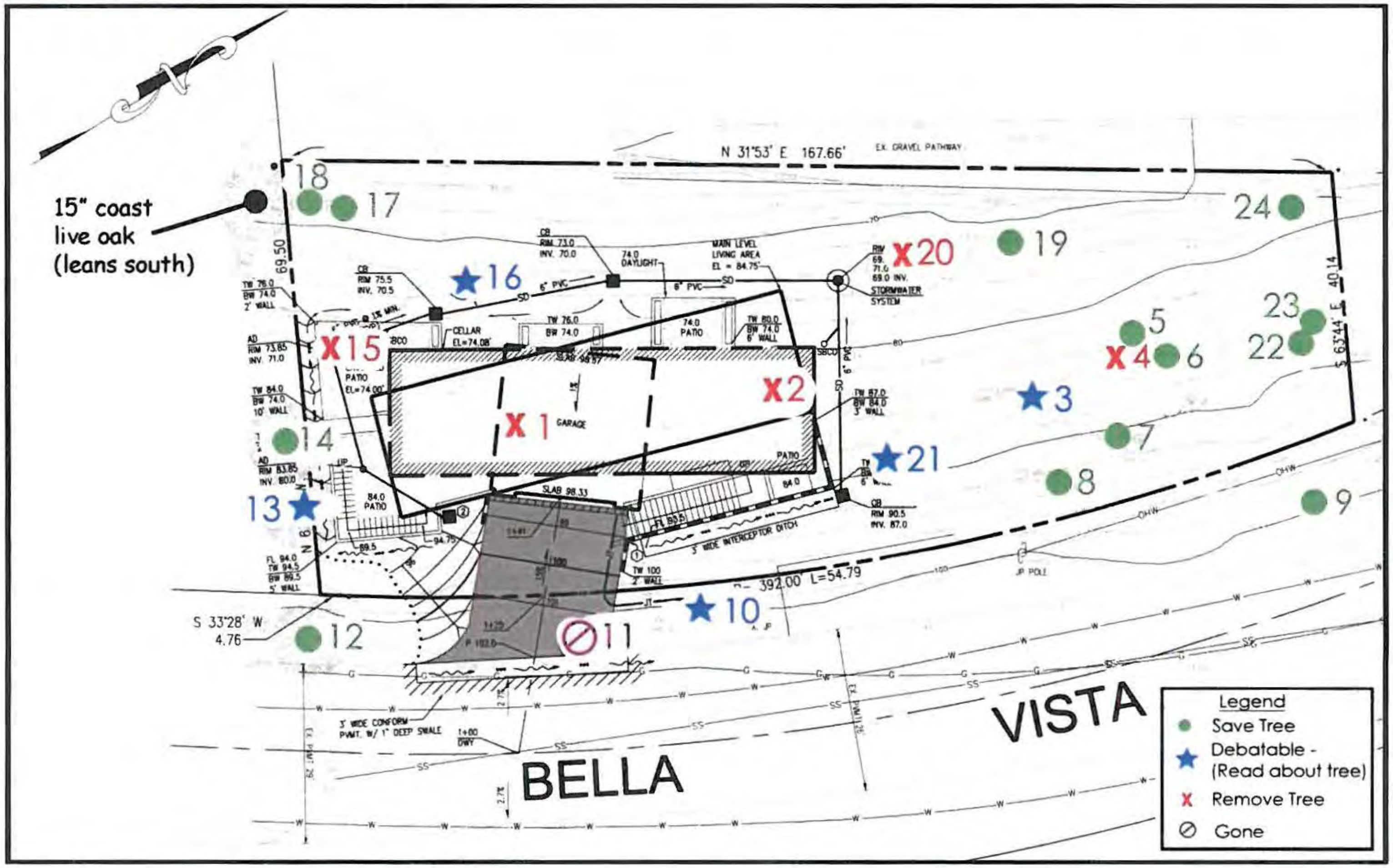
TREE MAP



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SUMMARY

There are 23 protected *trees*[1] on the project site. These trees are described briefly the *Summary Tree Table* (Table 1) on page 3 and in greater detail in the *Complete Tree Table* (Table 6) beginning on page 9. The Complete Tree Table also includes recommendations for reducing construction impact to trees when possible and practical. The **Town of Los Gatos General Tree Protection Directions** are included on pages 23 – 25 for those trees that will be retained on the developed site.

Based upon the plans that I have reviewed for this project:

- **Five trees are proposed to be or should be removed**. These trees are listed in Table 2 on page 4.
- **Five trees are classified as "debatable"** due to factors such as: tree condition, tree species, uncertainty about the extent of construction impact on the tree, or for other reasons. These trees are listed in Table 3 on page 4. Read more about these trees in the Notes column of the *Complete Tree Table*.
- **It should be possible to save the remaining 13 trees** on site, if they are adequately protected before, during and after construction. These trees are listed in Table 4 on page 5.

My general impression of the trees on this site is:
Most of the trees are not in good condition when evaluated individually because they have grown in crowded, shaded conditions for many years. The trees here grow in groves that are difficult to break apart without affecting remaining trees. When adjacent trees are removed, many of the remaining trees may not have good stability because they are suddenly exposed to a different environment (e.g. more sun or wind exposure) than they have adapted to over time. For some trees site development may improve their condition over time as they have access to more sunlight and growing space. Other trees should be removed due to increased risk due to different site environment and use. Therefore the remaining trees should be re-evaluated by a qualified arborist after the trees to be removed have been taken out.

The key trees for this site are: **Coast live oaks #1, 2 and 3** which are the largest trees on the site but will be removed because they are within the proposed house. Oak #3 is shown to remain, but it is not in good condition. Other trees on the site that are worth saving are the following coast live oaks in Fair/Good condition: **#10** (16-inch trunk diameter), **#17** (19-inch), and **#22** (8-inch).

[1] For the purpose of this project, a protected tree in Los Gatos as defined in the Los Gatos Town Code, Division 2 Tree Protection, Section 29.10.0960, 12/3/2010 the Scope of Protected Trees is any tree with a 4-inch or greater diameter of any trunk, when removal relates to any review for which zoning approval or subdivision approval is required. Town Street trees of any size are protected. Fruit trees less than 18 inches in trunk diameter are exempt.

TABLE 1 SUMMARY TREE TABLE

Tree #	Common Name	Trunk Diam. @ d ft.	Preservation Suitability	Expected Construction Impact	Action	Reason
01	coast live oak	20,18,9, 14,12,22	Fair/Good	Severe	Remove	Construction
02	coast live oak	48	Fair/Good	Severe	Remove	Construction
03	coast live oak	22,24	Fair/Poor	Low/Moderate	Debatable	Overall Condition
04	almond	5	None	Low	Remove	Dead
05	coast live oak	11	Fair	Low	Save	
06	coast live oak	9	Fair	Low	Save	
07	coast live oak	12, 10	Fair/Poor	Low	Save	
08	coast live oak	11	Fair	Low	Save	
09	coast live oak	9,11,13,13	Fair	Moderate	Save	
10	coast live oak	16	Fair/Good	Severe	Debatable	Construction
12	coast live oak	33	Fair/Poor	Moderate	Save	
13	valley oak	11	Poor	Severe	Debatable	Neighbor's tree
14	coast live oak	4	Poor	Moderate	Save	Neighbor's tree
15	coast live oak	5,7,11,18	Fair	Severe	Remove	Construction
16	olive	3,3,5,9	Fair/Poor	Severe	Debatable	Construction
17	coast live oak	19	Fair/Good	Low/Moderate	Save	
18	coast live oak	12	Fair/Poor	Low	Save	
19	Canary Island pine	13	Fair	Low	Save	
20	almond	5,4	Poor	Low/Moderate	Remove	Overall Condition
21	coast live oak	5	Fair	Severe	Debatable	Construction
22	coast live oak	8	Fair/Good	None	Save	
23	coast live oak	4,4	Fair	None	Save	
24	coast live oak	8	Fair	None	Save	

23 Trees. Note that tree #11 (included in previous arborist reports) was removed as of October 24 2013.

TABLE 2 TREES TO REMOVE

Tree #	Common Name	Trunk Diam. @ 3 ft.	Preservation Suitability	Expected Construction Impact	Reason for Removal
01	coast live oak	20,18,9, 14,12,22	Fair/Good	Severe	Construction
02	coast live oak	48	Fair/Good	Severe	Construction
04	almond	5	None	Low	Dead
15	coast live oak	5,7,11,18	Fair	Severe	Construction
20	almond	5,4	Poor	Low/Moderate	Overall Condition

5 Trees

TABLE 3 "DEBATABLE" TREES

Tree #	Common Name	Trunk Diam. @ 3 ft.	Preservation Suitability	Expected Construction Impact	Reason "Debatable"
03	coast live oak	22,24	Fair/Poor	Low/Moderate	Overall Condition
10	coast live oak	16	Fair/Good	Severe	Construction
13	valley oak	11	Poor	Severe	Neighbor's tree
16	olive	3,3,5,9	Fair/Poor	Severe	Construction
21	coast live oak	5	Fair	Severe	Construction

5 Trees

TABLE 4 TREES TO SAVE

Tree #	Common Name	Trunk Diam. @ 3 ft.	Preservation Suitability	Expected Construction Impact
05	coast live oak	11	Fair	Low
06	coast live oak	9	Fair	Low
07	coast live oak	12, 10	Fair/Poor	Low
08	coast live oak	11	Fair	Low
09	coast live oak	9,11,13,13	Fair	Moderate
12	coast live oak	33	Fair/Poor	Moderate
14	coast live oak	4	Poor	Moderate
17	coast live oak	19	Fair/Good	Low/Moderate
18	coast live oak	12	Fair/Poor	Low
19	Canary Island pine	13	Fair	Low
22	coast live oak	8	Fair/Good	None
23	coast live oak	4,4	Fair	None
24	coast live oak	8	Fair	None

13 Trees

TREES ON NEIGHBORING PROPERTIES

Valley oak #13 (11") and **coast live oak #14** (4") trunks are located on adjacent neighboring property to the south. There is also a **15-inch diameter coast live oak near the southwest corner of the site** that is not tagged but is marked on the Tree Map. All but this latter tree will be impacted by proposed construction. Trees #13 and 14 are discussed in this arborist report and have design changes and some specific tree protection measures recommended for them (*see the Complete Tree Table*). **Coast live oak #12** (33") at the southeast corner of the property on the shoulder of Bella Vista Avenue is in the public utility easement, as is **coast live oak #9** (multi-trunk 9 – 13").

RECOMMENDATIONS

1. **Remove the following 5 trees: #1, 2,4,15 and 20.**

2. **Save and protect the following 13 trees: #5, 6, 7, 8, 9, 12,14,17,18,19,22,23 and 24.**

3. **The following 5 trees are listed as "Debatable".** Read about these trees in the Notes column of the Complete Tree Table in order to determine how to deal with them. Design changes are recommended for some of these trees: **#3, 10, 13, 16 and 21.**

4. **In general, try to keep improvements (and any additional over-excavation or work area beyond the improvement) as far from tree trunks as possible.** *3xDBH*[2] should be considered the absolute minimum distance from any disturbance to the tree trunk on one side of the trunk, for root protection. If there will be disturbances on multiple sides of the trunk, then 5xDBH or greater should be used. Tree canopies must also be taken into consideration when designing around trees. **For the trees on this site I am generally recommending that the 5xDBH distance be used as the minimum root protection distance, due to tree condition, slope, lean, etc.**

5. **For those trees that will be retained on the site, follow the Town of Los Gatos General Tree Protection Directions** on pages 23 – 25 to the greatest extent possible, before site demo and during and after construction. Supplemental Tree Protection Directions that provide

[2] 3xDBH: See page 22 -23 for an explanation of 3 and 5xDBH, which are used to calculate root protection distances for trees.

more detailed information about specific tasks such as how to deal with tree roots can also be prepared for the project if requested. Such additional directions serve to cover potential gaps in tree protection for the trees that will remain on the site.

6. **Construction or landscaping work done underneath the dripline of existing trees should preferably be done by hand**, taking care to preserve existing roots in undamaged condition as much as possible and cutting roots cleanly by hand when first encountered, when those roots must be removed. A qualified consulting arborist (the project arborist) should be hired to monitor tree protection and supervise all work underneath the dripline of trees. This also applies to trees on neighboring properties whose canopies overhang the work site.

7. **New landscaping can be as or more damaging to existing trees than any other type of construction**. The same tree root protection distances recommended for general construction should also be observed for new landscaping. Within the root protection zone it is usually best to limit landscape changes to a 3 to 4-inch depth of coarse organic mulch such as wood or bark chips or tree trimming chippings spread over the soil surface. The environment around existing trees should be changed very carefully or not at all – please consult with me regarding changes in the landscape around existing trees and/or have me review the landscape plans for this project.

8. **This site contains many oaks that are native to the immediate area** (coast live oak, valley oak). All or most of these oaks are probably of natural growth. This tree species is able and grows best with no irrigation during the normal dry months of the year. The best treatment of the ground beneath the canopies of native oaks is nothing but their own natural leaf and twig litter mulch. Exceptions to the general rule of irrigation restriction include during the winter in extended drought periods, as temporary compensation for root loss due to construction, and for newly planted trees during their 2 to 3 year establishment period after installation. Native oak species are often killed due to inappropriate landscaping that is installed around them; mostly commonly landscaping that requires frequent irrigation such as lawns or other high water-use plants. Large drought tolerant trees such as native oaks can become dangerous when exposed to frequent irrigation, especially close to their trunks. California native oaks that are treated in this manner may contract root rot diseases and fall over at the roots; often causing great damage and personal injury if there are targets in their vicinity such as homes, cars and people. It is important to landscape correctly around our native oaks. Landscaping near these trees should be summer dry. The property developer should understand this as well as the future residents of the site. Therefore I have attached a publication entitled *Keeping Native California Oaks Healthy,* which should be read and followed by the project developer and landscape architect and should also be provided to each homeowner with native oaks on or adjacent to their property.

9. **Neighboring trees**: whose canopies overhang the project site must receive tree protection in the same manner as existing trees to remain on the project site; for example tree protection fencing and signage. The general contractor shall fence off the dripline of this

tree as much as possible in order to avoid damaging branches and compacting the soil beneath the canopy. If pruning is necessary in order to avoid branch breakage, the general contractor shall hire a qualified tree service to perform the minimum necessary construction clearance pruning. Neighboring trees that require protection are: **#9, 12, 13, 14** and the **15-inch coast live oak near the southwest corner of the site** *(this tree is noted on the Tree Map)*.

10. **The remaining trees on site should be re-evaluated** after surrounding trees are removed.

11. **General Tree Maintenance:**
    a. **The root collars and lower trunks of some of the trees were obscured from view by vegetation, excess soil or other covering.** Such portions of the tree should be uncovered and the tree re-evaluated by the arborist.
    b. **Do no unnecessary pruning, fertilization or other tree work.** Pre-construction pruning should be limited to the absolute minimum required for construction clearance. A qualified tree service should be hired to provide such pruning. Additional instructions for pruning are included in the Tree Protection Specifications/Directions. In general, trees should be pruned as little as possible. The most important post-construction pruning for this project will be the removal of large dead, cracked or hanging branches over target areas. I can advise you more about any additional pruning that may be beneficial after the project is completed.

12. **The following plans listed in Table 5 below have or have not been reviewed prior to the development of this Arborist Report.** Those plans not reviewed should be reviewed by me; otherwise potential construction impacts to trees may be missed and trees will be exposed to additional damage.

Table 5 Plans Reviewed or not Reviewed *(continued on the next page)*

PLAN	DATE	SHEET	REVIEWED	SHOULD REVIEW	NOTES
Existing Site Topographic Map *including existing tree trunk locations*					
Construction Staging	8/20/13	C3	X		Site Logistics, Construction Management
Demolition	8/20/13	C1	X		Includes proposed utilities
Proposed Site Layout	9/12/13	A-1.2	X		
Grading/Drainage	8/20/13	C2			
Underground Utility	8/20/13	C!	X		Includes demo
Site & Building Sections				X	
Erosion Control				X	
Building Exterior Elevations				X	

Table 5 Plans Reviewed or not Reviewed *(continued from the previous page)*

PLAN	DATE	SHEET	REVIEWED	SHOULD REVIEW	NOTES
Roof				X	
Shadow Study					
Construction Details *that would affect trees (for example building foundations, pavement installation including sub-grade preparation, underground utility installation)*				X	
Landscape Planting				X	
Irrigation Plan				X	
Landscape & Irrigation Details				X	
Other	9/12/13	A-1.0	X		Tree Canopy/Lot Coverage Statistics

APPENDIX

TABLE 6 COMPLETE TREE TABLE

This Table is continued through page 16. Data fields in the Table are explained on pages 17 to 20.

Tree #	Species & Common Name	Trunk Diam. @ d ft.	Size	CONDITION		Preservation Suitability	Expected Construction Impact	Action	Reason	Notes	TREE ROOT PROTECTION DISTANCES		
				Vigor	structure						3xDBH	5xDBH	OTPZ
01	*Quercus agrifolia*, coast live oak	20,18,9, 14,12,22	45*50	75	50	Fair/Good	Severe	Remove	Construction	Construction: within proposed house. Condition: stump sprout tree.	14	23	41

Tree #	Species & Common Name	Trunk Diam. @ d ft.	Size	CONDITION		Preservation Suitability	Expected Construction Impact	Action	Reason	Notes	TREE ROOT PROTECTION DISTANCES		
				Vigor	structure						3xDBH	5xDBH	OTPZ
02	coast live oak	48	50*50	75	70	Fair/Good	Severe	Remove	Construction	Construction: within proposed house.	12	20	48
03	coast live oak	22,24	50*50	45	45	Fair/Poor	Low/Moderate	Debatable	Overall Condition	Construction: proposed house is shown to be 34 feet from trunk; edge of canopy 8-9 feet if canopy is shown accurately. Centerline to storm drain between house and tree is 29 feet. Construction impact to roots should be minimal. Erect story posts to more accurately judge effect and any required pruning of canopy, however. Condition: lots of dead branches. The condition of the tree might be improved with some remedial care, or the tree may just continue to decline and eventually die.	9	14	26
04	*Prunus amygdalus*, almond	5	8*4	0	0	None	Low	Remove	Dead		1	2	3
05	coast live oak	11	22*12	60	40	Fair	Low	Save		Condition: grove affected, leans.	3	4	5
06	coast live oak	9	20*10	60	50	Fair	Low	Save			2	4	4
07	coast live oak	12, 10	30*18	70	50	Fair/Poor	Low	Save		Condition: stump sprout with included bark and a bulge between trunks.	4	7	8
08	coast live oak	11	20*16	70	50	Fair	Low	Save		Condition: zigzags and leans toward road, but makes a good screen.	3	4	5
09	coast live	9,11,13,13	20*30	80	45	Fair	Moderate	Save		Construction: This tree is in the shoulder	7	12	15

Tree #	Species & Common Name	Trunk Diam. @ d ft.	Size	CONDITION		Preservation Suitability	Expected Construction Impact	Action	Reason	Notes	TREE ROOT PROTECTION DISTANCES		
				Vigor	structure						3xDBH	5xDBH	OTPZ
	oak									of the road on Bella Vista Drive. Although it is far from construction, it could be impacted severely by vehicle parking and equipment/material storage. Therefore the contractor has correctly shown this tree to receive tree protection fencing on sheet C3, Site Logistics & Construction Management Plan. This fencing however, should extend around the entire canopy of the tree overhanging the shoulder area where vehicles could park or things could be stored -- not just on the south side of the tree. Fencing should encompass the entire dripline of the tree in this area if possible, but be placed no closer than 12 feet from the trunk of the tree. Condition: trunks in fan-like orientation with included bark between.			
10	coast live oak	16	30*18	80	60	Fair/Good	Severe	Debatable	Construction	Construction: This tree is shown within the temporary access road shown on sheet C-3, Site Logistics & Construction Management Plan. I am very glad to see a plan such as this included in the plan set, as this will be a difficult site to work on with or without existing trees. The access road should be moved to the North of the tree, preferably beyond the dripline of the tree. It will be difficult to drive over the tree. As for the actual	4	6	8

Tree #	Species & Common Name	Trunk Diam. @ d ft.	Size	CONDITION		Preservation Suitability	Expected Construction Impact	Action	Reason	Notes	TREE ROOT PROTECTION DISTANCES		
				Vigor	structure						3xDBH	5xDBH	OTPZ
										improvements: trunk is 2.5 feet from centerline of JT per the plans, Assume this means joint trench). Move this trench if possible, so that there will be no excavation within a minimum distance of 6 feet from the trunk. The proposed driveway is 11-12 feet from the trunk, which is OK. Some canopy clearance pruning will be needed for driveway clearance. Condition: Leans 15 degrees to south and parallel with road. Underneath overhead power lines.			
12	coast live oak	33	30*45	50	60	Fair/Poor	Moderate	Save		Construction: temporary access road is 8 feet from trunk. Move this road farther from the tree – perhaps by moving the outhouse onto the driveway area. I would prefer to see no soil disturbance within 14 feet of the trunk, so place the tree protection fencing at this minimum distance from the trunk. Also fence off the shoulder facing the road for this distance. Improvements: edge of grading for proposed driveway is 14-15 feet from trunk. A new sanitary sewer centerline is also shown at 11-12 feet from the trunk. Since this prominent tree is not in good condition to begin with, I recommend that there be no soil disturbance within a minimum of 14 feet	8	14	33

Tree #	Species & Common Name	Trunk Diam. @ d ft.	Size	CONDITION		Preservation Suitability	Expected Construction Impact	Action	Reason	Notes	TREE ROOT PROTECTION DISTANCES		
				Vigor	structure						3xDBH	5xDBH	OTPZ
										from the trunk of the tree (this means move the sanitary sewer farther from the tree) and that a project arborist be on site to observe any soil work performed beneath the dripline of the tree. Condition: canopy is thinning with dead branches to 3 inches in diameter.			
13	*Quercus lobata*, valley oak	11	40*25	40	40	Poor	Severe	Debatable	Neighbor's tree	Construction: temporary access road is 2-3 feet from trunk. Please relocate so there will be no disturbance within a minimum of 4 feet from the trunk. The tree protection fencing is also shown in the access road; this will not work. Improvements: a patio and stairway is shown at 5 feet from the trunk. A sanitary sewer centerline is at 10 feet and a storm drain at about 11 feet, and a drainage swale with centerline at about 3-4 feet from the trunk. Drainage swales can be 3 to 5 feet wide. Is this swale necessary? It could severely impact this tree. I am uncertain about the construction of the patio/stairwell and actual impact on the tree, but note the minimum recommended root protection distances. In any case a project arborist should be present during these excavations to assess damage to the tree and to determine whether or not the tree should be retained.	3	4	8

Tree #	Species & Common Name	Trunk Diam. @ d ft.	Size	CONDITION		Preservation Suitability	Expected Construction Impact	Action	Reason	Notes	TREE ROOT PROTECTION DISTANCES		
				Vigor	structure						3xDBH	5xDBH	OTPZ
14	coast live oak	4	9*9	40	40	Poor	Moderate	Save	Neighbor's tree	Construction: temporary access road is about 5 feet from trunk. This will work as long as tree protection fencing placed just on other side of road (at 5 feet from trunk). Improvements: patio shown at 6 feet from trunk, underground lines at 10 and 14 feet, and drainage swale centerline at 5 feet. As with tree #13, eliminate or scale down the drainage swale so that there is no soil disturbance within a minimum of 2 feet from the trunk. Otherwise this tree should be alright as long as it is well fenced off from construction. Condition: a small, suppressed tree beneath larger overstory trees.	1	2	3
15	coast live oak	5,7,11,18	40*30	70	50	Fair	Severe	Remove	Construction	Construction: at edge of proposed stairway/patio. Condition: stump sprout with some decay visible at the root collar due to a previous trunk failure.	7	12	21
16	*Olea europaea*, olive	3,3,5,9	25*20	75	50	Fair/Poor	Severe	Debatable	Construction	Construction: tree is located in proposed access road; this will not work. Seems reasonable to remove tree for this reason. Improvements: proposed cellar is 10 feet from trunk, house at 14 feet and 6-inch storm drain (centerline) at 3 feet from trunk. There is a note on the Grading & Drainage Plan to hand dig the	4	6	7

Tree #	Species & Common Name	Trunk Diam. @ d ft.	Size	CONDITION		Preservation Suitability	Expected Construction Impact	Action	Reason	Notes	TREE ROOT PROTECTION DISTANCES		
				Vigor	structure						3xDBH	5xDBH	OTPZ
										storm drain trench. If the cellar excavation has to be over-excavated beyond the wall, the actual excavation may be too close to the trunk. Hand digging the storm drain may help, but root damage may just be too much for the tree; therefore a project arborist should be present on site during excavations. According to the dripline of the tree drawn on the plan, some construction clearance pruning will be necessary. Really this tree is not worth going to a lot of trouble to save, but it does provide some screening right now. Removal and replanting with trees or screen shrubs that are more tolerant of shade may provide better screening in the long term, however. Condition: too shaded by larger overstory trees for an olive to do well in this location.			
17	coast live oak	19	50*30	70	60	Fair/Good	Low/Moderate	Save		Construction: temporary access road 15 feet from trunk. OK if tree protection fencing placed here. Improvements: proposed patio at 16-17 feet from trunk, end of drainage swale at 15 feet. Drainage water should not be directed toward the trunk of this or any other tree.	5	8	14

Tree #	Species & Common Name	Trunk Diam. @ d ft.	Size	CONDITION		Preservation Suitability	Expected Construction Impact	Action	Reason	Notes	TREE ROOT PROTECTION DISTANCES		
				Vigor	structure						3xDBH	5xDBH	OTPZ
18	coast live oak	12	20*20	60	40	Fair/Poor	Low	Save		Construction: 3 to 5 feet farther from improvements than previous tree #17. Condition: sweeps and leans with a significant co-dominant fork to the south. Very grove-affected.	3	5	6
19	*Pinus canariensis*, Canary Island pine	13	60*18	65	60	Fair	Low	Save		Construction: 24 feet from nearest portion of storm water drainage system.	3	5	6
20	almond	5,4	28*15	20	20	Poor	Low/Moderate	Remove	Overall Condition	Condition: most of tree is dead.	2	3	10
21	coast live oak	5	18*16	60	60	Fair	Severe	Debatable	Construction	Construction: temporary access road 2 feet from trunk. This will probably not work. Improvements: centerline of storm drain pipe 6 feet from trunk, retaining wall at 8 feet, and house at 10 feet. There is a lot going on between this tree and the house, including its canopy. Is there enough room to get the work done? If not, remove the tree. Condition: suppressed underneath larger trees; leans toward road.	1	2	3
22	coast live oak	8	20*12	80	60	Fair/Good	None	Save			2	3	4
23	coast live oak	4,4	18*15	60	50	Fair	None	Save			1	2	3
24	coast live oak	8	18*16	70	60	Fair	None	Save		Condition: ivy grows into and has overtaken much of tree.	2	3	4

EXPLANATION OF TREE TABLE DATA COLUMNS:

1) **Tree Number** (the field tag number of the existing tree). Each existing tree in the field is tagged with a 1.25 inch round aluminum number tag that corresponds to its tree number referenced in the arborist report, Tree Map, Tree Protection Specifications and any other project plans where existing trees must be shown and referenced.

2) **Tree Name and Type:**
   Species: The *Genus* and *species* of each tree. This is the unique scientific name of the plant, for example *Quercus agrifolia* where *Quercus* is the Genus and *agrifolia* is the species. The scientific names of plants can be changed from time to time, but those used in this report are from the most current edition of the Sunset Western Garden Book (2012) Sunset Publishing Corporation. The scientific name is presented at its first occurrence in the Tree Table, along with the regional common name. After that only the common name is used.

3) **Trunk diameter (at 3 feet above the ground).** This is the trunk diameter measurement height required by the Town of Los Gatos, in lieu of *DBH*[3]. For multi-trunk trees, trunk diameter is measured for the largest trunk and estimated for all smaller trunks. A number in parentheses (e.g. 2) after the trunk diameter(s) indicates that it was not possible to measure the trunk at 3 feet (due to tree architecture) and so the diameter was measured at this alternate height (in feet), which reflects a more realistic trunk diameter for the tree.

   Examples: an "18" in the Diameter column means that the tree has a diameter of 18 inches at 4.5 feet above the ground. An "18 (2)" means that trunk diameter was 18 inches at 2 feet above the ground. "18, 7, 5" means that this is a multi-trunk tree with trunk diameters of 18, 7 and 5 inches at 3 feet above the ground.

4) **Size**: tree size is listed as height x width in feet, estimated and approximate and intended for comparison purposes.

5) **Condition Ratings**: Trees are rated for their *condition* on a scale of *zero to 100* with zero being a dead tree and 100 being a perfect tree (which is rare – like a supermodel in human terms). A 60 is "average" (not great but not terrible either). There are two components to tree condition – ***vigor*** and ***structure***, and each component is rated separately. Averaging the two components is not useful because a very low rating for either one could be a valid reason to remove a tree from a site -- even if the other component has a high rating. Numerically speaking for each separate component:

   - **100** is equivalent to *Excellent* (an 'A' academic grade), **80** is *Good* (B), **60** is *Fair* (C), **40** is *Poor* (D), **20** is *Unacceptable* (F) and **0** is *Dead*.

[3] DBH is tree trunk diameter in inches "at breast height", measured at 4.5 feet above ground level. This is the forestry and arboricultural standard measurement height that is also used in many tree-related calculations.

Relative to the scope of work for this report, tree condition has been rated but not explained in detail and recommendations for the management of tree condition have not been included. The tree owner may contact Deborah Ellis for additional information on tree condition and specific recommendations for the general care of individual trees relative to their condition.

The condition of the tree is considered relative to the tree species and present or future intended use of the site to provide an opinion on the tree's Preservation Suitability Rating (i.e. "Is this tree worth keeping on this site, in this location, as explained in Table 7 below. This is based upon the scenario that the tree is given enough above and below-ground space to survive and live a long life on the site. Ratings such as "Fair/Good" and "Fair/Poor" are intermediate in nature. The Preservation Suitability rating is not always the same as the Condition Rating because (for example) some trees with poor condition or structure can be significantly improved with just a small amount of work – and it would be worthwhile to keep the tree if this were done.

Table 7 Preservation Suitability Rating Explanation

Excellent	Such trees are rare but they have unusually good health and structure and provide multiple functional and aesthetic benefits to the environment and the users of the site. These are great trees with a minimum rating of "Good" for both vigor and structure. Equivalent to academic grade `A'.
Good	These trees may have some minor to moderate structural or condition flaws that can be improved with treatment. They are not perfect but they are in relatively good condition and provide at least one significant functional or aesthetic benefit to the environment and the users of the site. These are better than average trees equivalent to academic grade `B'.
Fair	These trees have moderate or greater health and/or structural defects that it may or may not be possible to improve with treatment. These are "average" trees – not great but not so terrible that they absolutely should be removed. The majority of trees on most sites tend to fall into this category. These trees will require more intensive management and monitoring, and may also have shorter life spans than trees in the "Good" category. Retention of trees with moderate suitability for preservation depends upon the degree of proposed site changes. Equivalent to academic grade `C'.
Poor	These trees have significant structural defects or poor health that cannot be reasonably improved with treatment. These trees can be expected to decline regardless of management. The tree species themselves may have characteristics that are undesirable in landscape settings or may be unsuitable for high use areas. I do not recommend retention of trees with low suitability for preservation in areas where people or property will be present. Equivalent to academic grade `D'.
None	These trees are dead and are not suitable for retention in their location. In certain settings however, (such as wilderness areas, dead trees are beneficial as food and shelter for certain animals and plants including decomposers. Equivalent to academic grade `F'.

14. **Action (Disposition):**
    - ***Save***
    - ***Remove*** (based upon tree condition, preservation suitability, expected impact of construction, poor species for the site or any combination of these factors).
    - ***Debatable:*** there is a problem with potentially retaining this tree. Please read about the tree in the *Notes* column of the Complete Tree Table. Examples are:
        - The tree is shown to be saved (and may be a desirable tree to save) but proposed construction is too close and will cause too much damage to the tree. Design changes are recommended to reduce damage to the tree.
        - Further evaluation of the tree is necessary (e.g. the tree requires further, more detailed evaluation that is beyond the scope of this tree survey and report. Examples are advanced internal decay detection and quantification with resistance drilling or tomography, a "pull test" to assess tree stability from the roots, or tissue samples sent to a plant pathology laboratory for disease diagnosis.
        - Condition: the tree is in "so-so" condition and an argument could be made to either save or remove the tree as it stands now. In some cases the owner will make the decision to save or remove the tree based upon the information provided in this report as well as the owner's own preferences.
        - Uncertain construction impact
        - Other (as explained for the individual tree)

15. **Reason** (for tree removal or to explain why a tree is listed as "Debatable" or "Uncertain"). Multiple reasons may be provided, with the most significant reason listed first. Reasons can include but are not limited to:
    - ***Construction*** (excessive construction impact is unavoidable and it is not worthwhile to try and save the tree)
    - ***Condition*** (e.g. poor tree condition – either *vigor*, *structure* or both)
    - ***Landscaping*** (the tree is being removed because it does not fit in with or conflicts with proposed new landscaping)
    - ***Owner's Decision*** (for some reason the owner has decided to remove this tree)
    - ***Species*** (the tree is a poor species for the use of the site)
    - ***Risk*** (the tree presents moderate to excessive risk to people or property that cannot be sufficiently mitigated)

16. **Notes:** This may include any other information that would be helpful to the client and their architects and contractors within the scope of work for this report, such as a more detailed explanation of tree condition or expected construction impact. When reasonable, methods of reducing construction impact (including design changes) are presented here.

17. **Tree Protection Distances** *(See pages 22 and 23).*
    a. Root Protection:
        - **3 and 5xDBH**: Both the 3 and 5xDBH distances are listed for each tree. For multi-trunk trees 100% of the DBH of the largest trunk is added to 50% of the DBH for all other trunks in order to compute the operational DBH to use for these the Tree Protection Distance calculations.
        - **OTPZ (Optimum Tree Protection Zone)**: This is calculated as per the text, *Trees & Development*, Matheny et al., International Society of Arboriculture, 1998. This method takes into account tree age and the particular tree species tolerance of root disturbance. Because it may not be possible to maintain the OPTZ distance recommended for trees on many projects due to crowded site conditions, the Arborist may omit this requirement and list only the 3 and 5xDBH distances.
    b. Canopy Protection: Additional space beyond root zone protection distances may be necessary for canopy protection.

SUPPORTING INFORMATION

PURPOSE & USE OF REPORT

This survey and report was required by the Town of Los Gatos as a part of the building permit process for this project. The purpose of the report is to identify and describe the existing protected trees on site - - their size, condition and suitability for preservation. The audience for this report is the property owner, developer, project architects and contractors, and Town of Los Gatos authorities concerned with tree preservation and tree removal. The goal of this report is to preserve the existing protected trees on site that are in acceptable condition, are good species for the area and will fit in well with the proposed new use of the site.

BACKGROUND

I am aware of the following Arborist Reports which have been prepared for the project site:

- September 20, 2001. D. Ellis
- February 8, 2005. D. Ellis
- January 29, 2007. David Babby
- July 11, 2009. D. Babby
- February 24, 2011, D. Babby

The number of homes proposed on the site has been reduced from two in 2001 to one home in the current plans dated in August and September of 2013. In both my 2001 and 2005 reports I noted that many of the trees on site were in poor condition, and that is still the case.

METHODOLOGY

I performed a basic evaluation of the subject trees on October 24, 2013 Tree characteristics such as form, weight distribution, foliage color and density, wounds and indicators of decay were noted. Surrounding site conditions were also observed. Evaluation procedures were taken from:

- *Guide for Plant Appraisal*, 9th edition, 2000, authored by the Council of Tree and Landscape Appraisers (CTLA) and published by the International Society of Arboriculture (ISA).
- *Species Classification and Group Assignment* published by the Western Chapter of the International Society of Arboriculture (WCISA), 1992.
- *Tree Hazard Evaluation Form* taken from *Evaluation of Hazard Trees in Urban Areas*, 2nd Ed., Matheny & Clark, International Society of Arboriculture, 1994.

The above three references serve as industry professional standards for tree and landscape evaluations.

I measured the trunk diameter of each tree with a diameter tape at 3 feet above the ground, which is the required trunk diameter measurement height of the Town of Los Gatos. Trunk diameter was extrapolated to *DBH* (diameter at breast height, 4.5 feet above the ground) because DBH is also used calculate tree protection distances and other tree-related factors. The DBH figure is not included in the Tree Tables, but I have used it to estimate construction impacts to trees. Trunk diameter was rounded to the nearest inch. I estimated the tree's height and canopy spread. Tree *Condition* (structure and vigor) was evaluated and I also recorded additional notes for trees when significant. Tree species and condition considered in combination with the current or (if applicable) proposed use of the site yields the *Tree Preservation Suitability* rating. The more significant trees (or groups of trees) were photographed with a digital camera. All of the October 24, 2013 photos are included in this report.

OBSERVATIONS

SITE CONDITIONS

The lot slopes steeply down to the west from Bella Vista Avenue. There are no structures or other improvements on the site. There has been no maintenance of trees or vegetation other than pruning to remove some of the lower branches on some trees, particularly those trees at the top of the lot by Bella Vista Road. Vegetation is mainly native to the immediate area and is of *natural growth* (it was not planted). Exceptions are **olive tree #16** and **Canary Island pine #19** which are not native to the area and may or may not have been planted. Sun exposure for the trees varies from full to partly shaded, depending upon proximity to existing buildings and to other trees.

TREE PROTECTION DISTANCES

3 TO 5 X DBH

No one can estimate and predict with absolute certainty how far a soil disturbance such as an excavation must be from the edge of the trunk of an individual tree to affect tree stability or health at a low, moderate or severe degree -- there are simply too many variable involved that we cannot see or anticipate. 3xDBH however, is a reasonable "rule of thumb" minimum distance (in feet) any excavation should be from the edge of the trunk *on one side of the trunk.* This is supported by several separate research studies including (Smiley, Fraedrich, & Hendrickson 2002, Bartlett Tree Research Laboratories. *DBH* is trunk "diameter at breast height" (4.5 feet above the ground). This distance is often used during the design and planning phases of a construction project in order to estimate root damage to a tree due to the proposed construction. It tends to correlate reasonably well with the *zone of rapid taper*, which is the area in which the large *buttress roots* (main support roots close to the trunk) rapidly decrease in diameter with increasing distance from the trunk. For example, using the 3X DBH guideline an excavation should be no closer than 4.5 feet from the trunk of an 18-inch DBH tree. Such distances are guidelines only, and should be increased for trees with heavy canopies, significant leans, decay, structural problems, etc. It is also important to understand that in actual field conditions we often find that much less root damage occurs than was anticipated by the guidelines. 3xDBH may be more of an aid in preserving tree stability and not necessarily long-term tree health. 5X DBH or greater is the "preferred" minimum distance which should be strived for, and this distance or greater should probably be used when there are multiple trenches on more than one side of the trunk. The roots beyond the zone of rapid taper form an extensive network of long, rope-like roots one to two inches in diameter. These woody perennial roots are referred to as *transport roots* because they function primarily to transport water and minerals. Maintaining a 5xDBH tree protection zone or greater around a tree will preserve more of these transport roots, which will have less of an impact on tree health than if the excavation were closer to the trunk.

OTPZ (OPTIMUM TREE PROTECTION ZONE)

OTPZ is the distance in feet from the trunk of the tree, all around the tree, that construction or other disturbance should not encroach within. If this zone is respected, then chances of the tree surviving construction disturbance are very good. This method takes into account tree age, DBH and the particular species tolerance to root disturbance. Although there are no scientifically based methods to determine the minimum distance for construction (for example, root severance) from trees to assure their survival and stability, there are some guidelines that are often used in the arboricultural industry. The most current guideline comes from the text, Trees & Development, Matheny et al., International Society of Arboriculture, 1998. The tree protection zone calculation method in this text was used to obtain the OTPZ's provided in this report. Due to the crowded, constrained nature of many building sites it is often not be possible to maintain the OPTZ distance recommended for many of the trees -- therefore I have also listed alternate distances of 3 and 5X DBH *(see paragraph above).*

LOS GATOS GENERAL TREE PROTECTION DIRECTIONS

Note that the following is excerpted from* Division 2 *(Tree Protection) of the Los Gatos Town Code and does not constitute the complete Division 2 text. The owner/applicant is responsible for implementing all pertinent requirements of the Code relative to tree protection.

Sec. 29.10.1000 New Property Development

(1) The final approved Tree Preservation Report shall be included in the building permit set of development plans and printed on a sheets titled: Tree Preservation Instruction (Sheet T-1, T-2, etc.). These Sheets shall be referenced on all relevant sheets (civil, demolition, utility, landscape, irrigation) where tree impacts from improvements may be shown to occur.

(3.b.) The site or landscape plans shall indicate which trees are to be removed. However, the plans do not constitute approval to remove a tree until a separate permit is granted. The property owner or applicant shall obtain a protected tree removal permit, as outlined in section 29.10.0980 for each tree to be removed to satisfy the purpose of this definition.

(3.e.) Protective fencing inspection: Prior to issuance of any demolition, grading or building permit, the applicant or contractor shall submit to the building department a written statement verifying that the required tree protection fence is installed around street trees and protected trees in accordance with the Tree Preservation Report.

(3.g.) An applicant with a proposed development which requires underground utilities shall avoid the installation of said utilities within the dripline of existing trees whenever possible. In the event that this is unavoidable, all trenching shall be done using directional boring, air-spade excavation or by hand, taking extreme caution to avoid damage to the root structure. Work within the dripline of existing trees shall be supervised at all times by a certified or consulting arborist.

Section 29.10.1005 Protection of Trees During Construction

a) Protective tree fencing shall specify the following:
1) **Size and materials**: A five (5) or six (6) foot high chain link fencing, mounted on two-inch diameter galvanized iron posts, shall be driven into the ground to a depth of at least two (2) feet at no more than 10-foot spacing. For paving area that will not be demolished and when stipulated in a tree preservation plan, posts may be supported by a concrete base.
2) **Area type to be fenced**. Type I: Enclosure with chain link fencing of either the entire dripline area or at the tree protection zone (TPZ), when specified by a certified or consulting arborist[4]. Type II: Enclosure for street trees located in a planter strip: chain link fence around the entire planter strip to the outer branches. Type III: Protection for a tree located in a small planter cutout only (such as downtown): orange plastic fencing shall be wrapped around the trunk from the ground to the first branch with 2-inch wooden boards bound securely on the outside. Caution shall be used to avoid damaging any bark or branches.
3) **Duration of Type I, II, III fencing**. Fencing shall be erected before demolition, grading or construction begins and remain in place until final landscaping is required. Contractor shall first obtain the approval of the project arborist on record prior to removing a tree protection fence.
4) **Warning sign**. Each tree fence shall have prominently displayed an 8.5 x 11-inch sign stating: "Warning—Tree Protection Zone-this fence shall not be removed and is subject to penalty according to Town Code 29.10.1025".

b) All persons, shall comply with the following precautions:
1) **Prior to the commencement of construction, install the fence** at the dripline, or tree protection zone (TPZ) when specified in an approved arborist report, around any tree and/or vegetation to be retained which could be affected by the construction and prohibit any storage of construction materials or other materials or vehicles inside the fence. The dripline shall not be altered in any way so as to increase the encroachment of the construction.
2) **Prohibit excavation, grading, drainage and leveling within the dripline of the tree** unless approved by the director.
3) **Prohibit disposal or depositing of oil, gasoline, chemicals or other harmful materials within the dripline of or in** drainage channels, swales or areas that may lead to the dripline of a protected tree

[4] If it is not possible to place Type 1 or Type 2 tree protection fencing at the dripline due to the construction, then place the fencing as far from the trunk as possible, including as much of the dripline as possible, while still allowing for enough room to build improvements. If this happens to be within all or some of the dripline, then so be it. But the contractor must try to fence off as much area under the canopy as possible, do not be irresponsible about this.

4) **Prohibit the attachment of wires, signs or ropes** to any protected tree.
5) **Design utility services and irrigation lines** to be located outside of the dripline when feasible.
6) **Retain the services of the certified or consulting arborist for periodic monitoring** of the project site and the health of those trees to be preserved. The certified or consulting arborist shall be present whenever activities occur that pose a potential threat to the health of the trees to be preserved.
7) **The director and project arborist shall be notified of any damage that occurs** to a protected tree during construction so that proper treatment may be administered.

Section 29.10.1010 Pruning and Maintenance

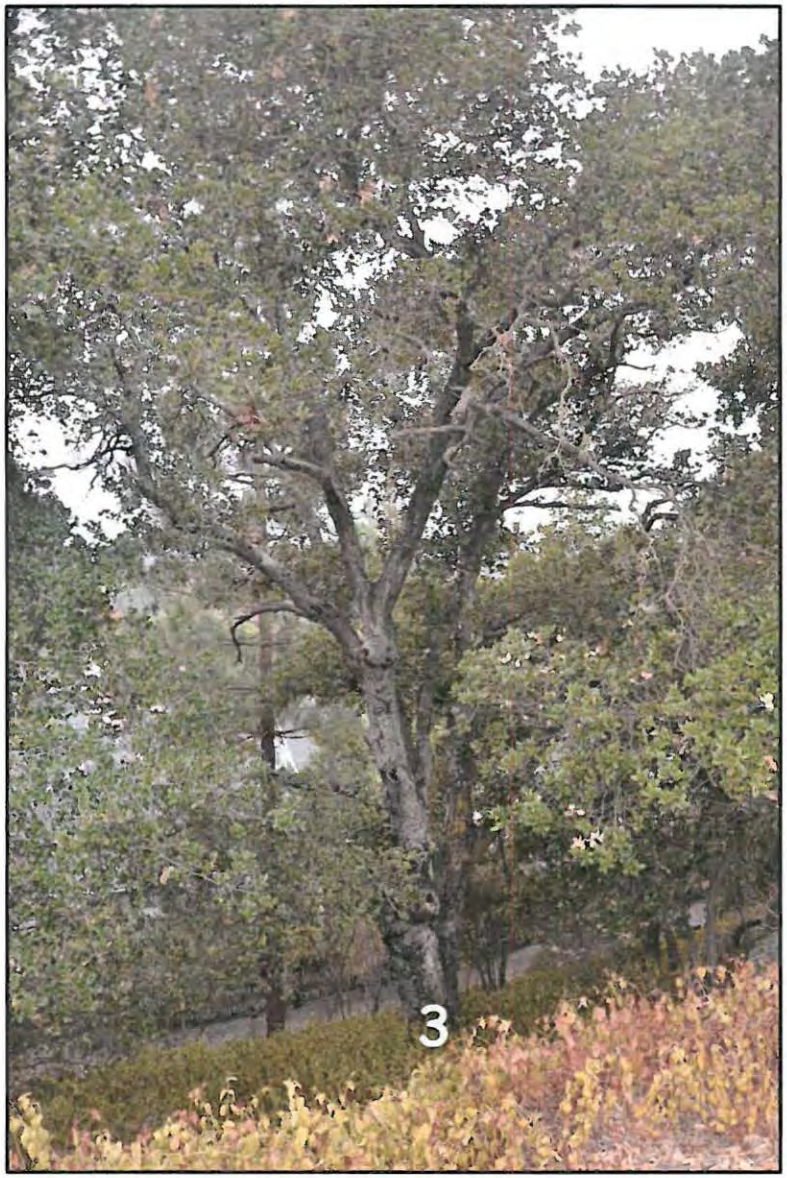
All pruning of protected trees shall be consistent with the current edition of Best Management Practices – Tree Pruning, established by the International Society of Arboriculture (ISA) and any special conditions as determined by the Director. For developments, which require a tree preservation report, a certified or consulting arborist shall be in reasonable charge of all activities involving protected trees including cabling, and fertilizing if specified.

1) **Any public utility installing or maintaining any overhead wires or underground pies or conduits** in the vicinity of a protected tree shall obtain permission from the Director before performing any work, including pruning, which may cause injury to a protected tree (e.g. cable TV/fiber optic trenching, gas, water, sewer trench, etc.)

2) **Pruning for clearance of utility lines and energized conductors** shall be performed in compliance with the current version of the American National Standards Institute (ANSI) A300 (Part 1) - Pruning, Section 5.9 Utility Pruning. Using spikes or gaffs when pruning is prohibited.

TREE PHOTOS

Left Photo: **coast live oak #1**, viewed from Bella Vista Avenue upslope and to the east.
Right photo: **coast live oak #2** from the same viewpoint. Both trees will be removed because they are within the proposed house.



Left photo: **coast oak #3**, in "Fair/Poor" condition but scheduled to remain. Viewed from Bella Vista Avenue upslope and to the east.

Right photo: looking across and down the slope from Bella Vista Avenue to the Northeast. **Coast live oaks #1 and 10**, **valley oak #13** and **olive #16** are numbered.

Upper photo: **coast live oak #2** in foreground, with **coast live oaks #3 and #6** labeled in the background. Looking across and down the slope from southeast to northwest.

Lower photo: **Coast live oak #12** along Bella Vista Avenue, from the south.

Coast live oaks #2 and 3 from the across Bella Vista Avenue to the east.

ASSUMPTIONS & LIMITATIONS

1) **Tree locations** were provided by TS Civil Engineering and are shown on the Tree Map on page 1 of this report. The tree map is a reduced partial copy of the Grading & Drainage plan that I was given. Tree locations are assumed to be accurate but should be verified in the field.
2) **Many trees had their root collars and or lower trunks covered** with soil, vegetation or debris and were obstructed from view when I conducted my tree evaluation. The obstructions should be removed and the project arborist should then be called back to re-examine these previously covered areas.
3) **The information contained in this report covers only those items that were examined** and reflects the condition of those items at the time of inspection.
4) **Loss or removal of any part of this report** invalidates the entire report.
5) **Possession of this report, or any copy thereof, does not imply right of publication** for use for any purpose by any person other than to whom this report is addressed without my written consent beforehand.
6) **Neither all nor any part of the contents of this report, nor copy thereof, shall be used for any purpose by anyone but the client to whom this report is addressed**, without my prior written consent, nor shall it be conveyed to anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the my written consent and approval; particularly as to value considerations, my identity to any professional society or institute or to any designation conferred upon by me as stated by my qualifications.
7) **This report and the values represented herein represent my opinion**. My fee is in no way contingent upon the reporting of a specified value or upon any finding or recommendation reported.
8) **Sketches, diagrams, graphs, photos, etc.** in this report are intended as visual aids and are not necessary to scale. These should not be construed as engineering information or specifications.
9) **This report has been prepared in conformity with generally acceptable appraisal/diagnostic/reporting methods and procedures** and is consistent with practices recommended by the International Society of Arboriculture and the American Society of Consulting Arborists.
10) **My evaluation of the trees that are the subject of this report s is limited to visual examination of accessible items without dissection, excavation, probing or coring.** There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.
11) **I take no responsibility for any defects in any tree's structure.** No tree described in this report has been climbed and examined from above the ground, and as such, structural defects that could only have been discovered have not been reported, unless otherwise stated. Structural defects may also be hidden within a tree, in any portion of a tree. Likewise, root collar excavations and evaluations have not been performed unless otherwise stated.

12) **The measures noted within this report are designed to assist in the protection and preservation of the trees mentioned herein**, should some or all of those trees remain, and to help in their short and long term health and longevity. This is not however; a guarantee that any of these trees may not suddenly or eventually decline, fail, or die, for whatever reason. Because a significant portion of a tree's roots are usually far beyond its dripline, even trees that are well protected during construction often decline, fail or die. Because there may be hidden defects within the root system, trunk or branches of trees, it is possible that trees with no obvious defects can be subject to failure without warning. The current state of arboricultural science does not guarantee the accurate detection and prediction of tree defects and the risks associated with trees. There will always be some level of risk associated with trees, particularly large trees. It is impossible to guarantee the safety of any tree. Trees are unpredictable.

****

I certify that the information contained in this report is correct to the best of my knowledge, and that this report was prepared in good faith. Thank you for the opportunity to provide service again. Please call me if you have questions or if I can be of further assistance.

Sincerely,

Deborah Ellis

Deborah Ellis, MS.
Consulting Arborist & Horticulturist
Certified Professional Horticulturist #30022
ASCA Registered Consulting Arborist #305
I.S.A. Board Certified Master Arborist WE-457B

Enclosure: *Keeping Native Calif. Oaks Healthy*. Hagen. June 1990. California Department of Forestry & Fire Protection. Tree Notes #7.

GLOSSARY

1) **Arborist, Qualified Consulting**: must be either an International Society of Arboriculture (ISA) Board-Certified Master Arborist or an American Society of Consulting Arborists (ASCA) Registered Consulting Arborist that has sufficient knowledge and experience to perform the specific work required.
2) **Basic Evaluation (of Trees)**: A visual evaluation of the tree from the ground, without climbing into the tree or performing detailed tests such as extensive digging, boring or removing samples. This is an initial screening of the tree after which the evaluator may recommend that additional, more detailed examination(s) be performed.
3) **Co-dominant** refers to two leaders, branches or trunks that arise at the same point on a tree and are about the same diameter. This is an undesirable structural defect that is a weak point in the tree. Co-dominant stems typically lack the overlapping tissue present in a branch or trunk collar, which may be why trees with this defect split so easily. Included bark between members also reduces the strength of the union. It is best that branches or trunks originate with space between them, or if they arise at the same point that they be of different sizes. Co-dominant leaders can often be corrected (one leader removed) when trees are young. When trees are older it is often better to subdue the smaller or more undesirable member by reducing the length of and/or thinning the terminal half of the foliage by 25% to slow its growth and ultimate size relative to the other member, rather than create a large wound by removing one of the members. Large wounds are much more subject to decay than are smaller wounds and there is no natural decay barrier between the members.
4) **Dripline**: the area under the total branch spread of the tree, all around the tree. Although tree roots may extend out 2 to 3 times the radius of the dripline, a great concentration of active roots is often in the soil directly beneath this area. The dripline is often used as an arbitrary "tree protection zone".
5) **Grove**: is a group of trees that located close together that shelter each other from wind and the elements, having "knit" canopies. If of the same species, there is usually root grafting between trees, which lends support from the ground, as well as water and mineral sharing. Removal of one or some grove members could cause remaining members to be unstable due to a reduction of previous shelter. Grove trees often have asymmetrical canopies when viewed as individuals.
6) **Included bark** is bark sandwiched between adjacent branches, a branch and the trunk, or two or more trunks, often appearing as a seam. In contrast, a normal attachment will have a ridge of bark protruding upwards and a continuous wood connection between adjacent members. An included bark branch or trunk attachment is weaker than a normal attachment. As branches or trunks with included bark grow, they expand in diameter, squeezing the bark along the seam. This may kill some portion of the included bark. When this occurs, a wound response is initiated. As a consequence, cracks can be generated, leading to breakage. Such defects can often be completely removed when a tree is young (e.g. the offending members equal or less than 2 inches in diameter). Older, larger cuts (such as 6 inches in diameter or more) could cause decay to spread into the remaining member, which is undesirable. In these cases it may be best to thin one member (usually the smaller member) by 25% to slow its growth and ultimate size.
7) **Root collar**: area at the base of the trunk (usually flared) where the roots and trunk merge; also called the root flare or root crown of the tree or shrub. Buttress roots (the main support roots of the tree) originate here and are often visible for a short distance above the ground. The root collar is critical to whole-tree health and stability. Canker: an area of dead bark. A localized lesion on a stem or branch, often sunken in appearance, commonly associated with a wound, decay or death of internal tissues. Cankers often extend beyond the extent of an original

infection or wound, killing surrounding previously healthy tissue. If decay is present and spreads into the wood, a very weak area is created because both the inner and outer growth rings are affected.

8) **Root rot disease** is caused by wet, poorly aerated soil conditions. Degradation of roots (root rot) and sometimes the lower trunk (crown rot) ensues on weakened, susceptible plant species not adapted to such a soil environment. Opportunistic plant root pathogens (such as watermold fungi) are often the secondary cause of the problem. Root rot is a particular problem among drought tolerant plants that are not adapted to frequent irrigation during our normally rain-free months, such as many of our California native plants. The problem is often worsened in fine-textured heavy clay soils that retain water more than do the coarser, fast-draining soils such as occur in the natural environment of many of our native plants.
9) **Stump sprout trees** are the result of a tree trunk being cut down to a short stump close to the ground. If the tree survives, it sends out many small shoots (suckers) from around the cut stump. Some of these suckers may survive and grow to become significant trunks. These trunks are spaced very close together and usually have included bark between them, which reduces the strength of their union. Such trunks are prone to failure. Stump sprout trees can be very structurally unsound, particularly as they become large and old. There is often a great deal of decay associated with the mother stump, which can also reduce mechanical stability.
10) **Summer Dry**: Our native oak species are adapted to our "summer dry" climate. When the soil in their root system is kept moist during our normally dry months, these oaks are predisposed to attack by fungal root rot pathogens that are usually present in our soils. Therefore it is important to keep irrigation as far from the tree trunk (preferably beyond the mature dripline) as possible. The best landscape treatment underneath native oaks is non-compacted soil covered with a 3 to 4-inch depth of oak wood, leaf and twig litter (the tree's natural litter). Keep this mulch 6 to 12 inches away from the root collar (junction of trunk and roots). An exception to the no summer water rule would be newly planted oaks (for the first 2 to 3 years after planting, until they are "established") and also during droughts that occur during the normal rainy season.
11) **Thinning** of the canopy (an abnormal and detrimental loss of foliage, fine branches and eventually larger branches) can have many possible causes such as: disease or insect infestation, root damage or disease or general stress caused by an environmental excess or deficiency.
12) **Tree Service, Qualified**: A tree service with a supervising arborist who has the minimum certification level of ISA (International Society of Arboriculture) Certified Arborist, in a supervisory position on the job site during execution of the tree work. The tree service shall adhere to the most current of the following arboricultural industry tree care standards:
    - ANSI A300 Pruning Standards. (Covers tree care methodology).
    - ANSI Z133.1 Safety Requirements for Arboricultural Operations. (Covers safety).
    - Best Management Practices, Tree Pruning. International Society of Arboriculture

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Deborah Ellis, MS

Consulting Arborist & Horticulturist

Service since 1984

Erwin Ordonez
Town of Los Gatos Community Planning Department
110 E. Main Street
Los Gatos, CA 95031

September 24, 2014

Re: 341 Bella Vista Avenue, Review of 9/5/14 Revised Plans relative to Existing Tree Protection

Dear Erwin:

My last Arborist Report for this project is dated October 28, 2013. For this current report I reviewed the following 9/5/14 plan sheets, which are new to me for this project:

- C1 Demolition
- C2 Grading & Drainage
- C3 Site Logistics & Construction Management
- C4 Hillside Exceptions

Based upon these plans:

- The following 7 protected trees will be removed: **#1, 2, 10, 11, 15, 19, and 21.**
- The following 3 trees of less than protected size will be removed: **#4, 16 and 20.**
- The following 14 protected trees will be saved and protected: **#3, 5, 6, 7, 8, 9, 12, 14, 14, 17, 18, 22, 23 and 24.**
    - Of the above 14 trees, **#12, 13 and 14** are on neighboring property to the south.

The **Tree Map** on the next page shows the updated disposition of the trees, and each tree is also identified and described in the **Tree Table** on pages 3 and 4.

A **Discussion** of the project in terms of existing tree retainment is on page 5.

Recommendations are provided on pages 6 through 9.

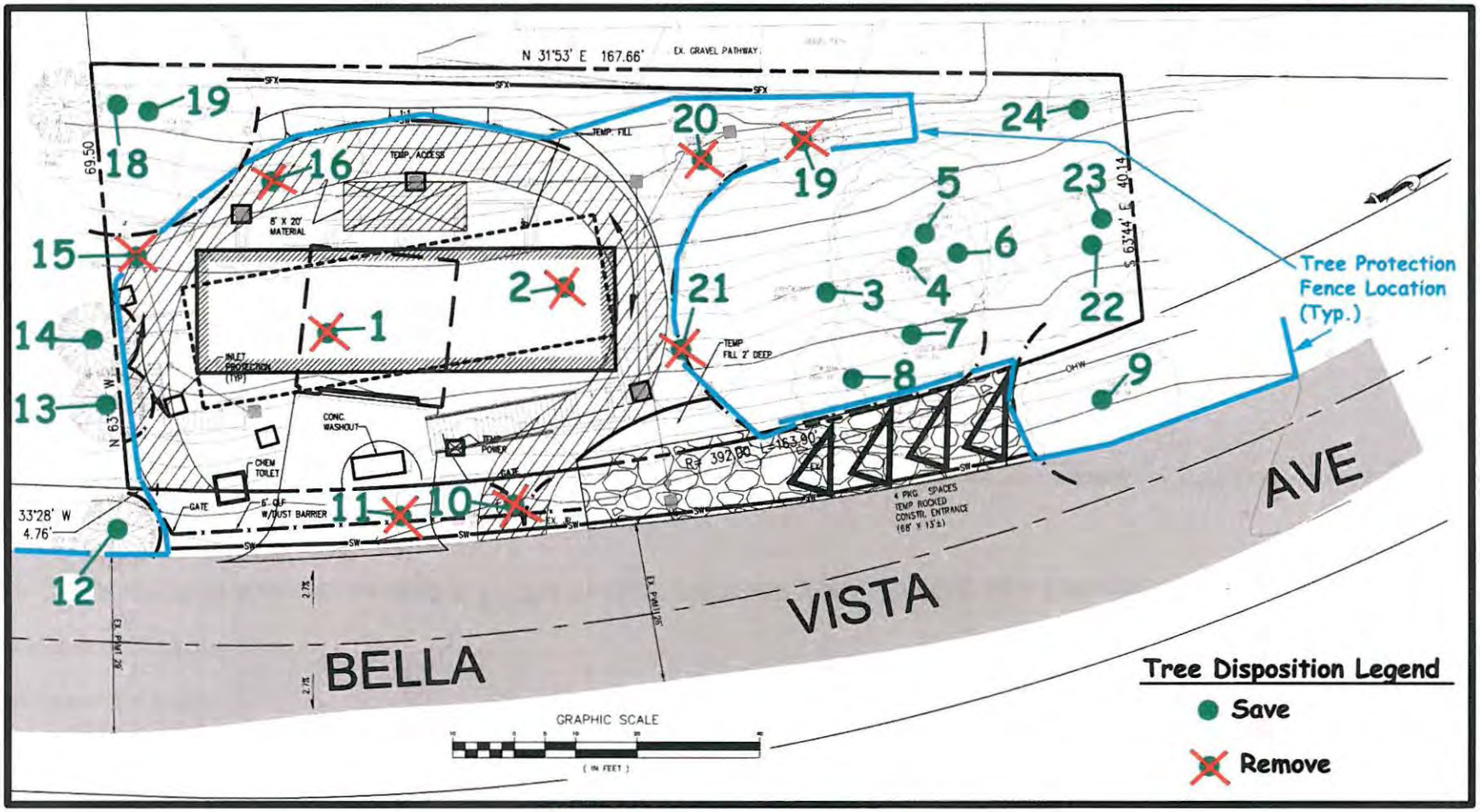
EXHIBIT 1 0

EXHIBIT 1 0

Deborah Ellis, MS

Consulting Arborist & Horticulturist

Service since 1984



Tree Map (see Notes, page _).

PO Box 3714, Saratoga, CA 95070. 408-725-1357. decah@pacbell.net. http://www.decah.com.

Tree Table (continued on the next page)

* Not a protected tree

Tree #	Common Name	TRUNK DIAM. (In. @ 3 ft.)	Preservation Suitability	SIZE (Height x Width in feet)	Expected Construction Impact	Action	Reason	Notes
01	coast live oak	20,18,9, 14,12,22	Fair/Good	45x50	Severe	Remove	Construction	Within proposed house.
02	coast live oak	48	Fair/Good	50x50	Severe	Remove	Construction	Within proposed house.
03	coast live oak	22,24	Fair/Poor	50x50	Low	Save	Overall Condition	
*04	almond	5	None	4x4	Low	Remove	Dead	
05	coast live oak	11	Fair	22x12	Low	Save		
06	coast live oak	9	Fair	20x10	Low	Save		
07	coast live oak	12, 10	Fair/Poor	30x18	Low	Save		
08	coast live oak	11	Fair	20x16	Low/Moderate	Save		
09	coast live oak	9,11,13,13	Fair	20x30	Low/Moderate	Save		
10	coast live oak	16	Fair/Good	30x18	Severe	Remove	Construction	Within construction access road.
12	coast live oak	33	Fair/Poor	30x45	Moderate	Save		
13	valley oak	11	Poor	40x25	Moderate/Severe	Save	Neighbor's tree	
14	coast live oak	4	Poor	9x9	Moderate/Severe	Save	Neighbor's tree	
15	coast live oak	5,7,11,18	Fair	40x30	Severe	Remove	Construction	Within proposed access road and patio.
*16	olive	3,3,5,9	Fair/Poor	25x20	Severe	Remove	Construction	Within proposed access road and patio.
17	coast live oak	19	Fair/Good	50x30	Low/Moderate	Save		
18	coast live oak	12	Fair/Poor	20x20	Low	Save		

Tree Table (continued from the previous page)

Tree #	Common Name	TRUNK DIAM. (In. @ 3 ft.)	Preservation Suitability	SIZE (Height x Width in feet)	Expected Construction Impact	Action	Reason	Notes
19	Canary Island pine	13	Fair	60x18	Severe	Remove	Construction	
*20	almond	5,4	Poor	28x15	Moderate/Severe	Remove	Construction, Overall Condition	Within a few feet of overflow pump well and several underground pipes requiring trenching.
21	coast live oak	5	Fair	18x16	Moderate/Severe	Remove	Construction	Within 10 feet of house wall, and closer to several underground pipes.
22	coast live oak	8	Fair/Good	20x12	Low	Save		
23	coast live oak	4,4	Fair	18x15	Low	Save		
24	coast live oak	8	Fair	18x16	Low	Save		

End of Table

Notes on Tree Map and Tree Table:

1. The plan sheet used for the Tree Map is the *Site Logistics & Construction Management Plan*, sheet C-3. All of the proposed improvements shown on the 9/5/14 C-Sheets (C1-4) are not shown on this plan, so it may not be obvious why a particular tree is shown to be removed. Read the "Action" and "Notes" column in the Tree Table to find out why a particular tree is listed to be removed.

2. The *Trunk Diameter, Size* and *Condition* ratings in the *Tree Table* are from my last evaluation of the trees and the site on October 24, 2013. I did however, ride by the site last week to take a brief look around. The site and the condition of the trees do not seem to have changed appreciably since my October 2013 evaluation.

Discussion about this Project in General, from an Existing Tree Preservation Perspective:

This is a very difficult site to design and build a house on! I am impressed with the effort that has been put into this project from an existing tree retention perspective. It is inevitable that some trees will need to be removed in order to place a house on the lot. Reducing the number of houses from two to one has made it possible to keep the Northern portion of the lot undisturbed as green space, which is certainly of benefit to the neighborhood.

There are few more trees that will need to be removed than are indicated on the C-3 plans. The reason for this is that not all improvements have been shown on all plans, and a few necessary tree removals were missed because of this. The current tree removal list in this report is a compilation of all improvements on all of the C-3 sheets. Most of the trees that will be removed except for **trees #1, 2 and 10** have been rated as having "Fair" or less preservation suitability, so the majority of trees that will be removed are not good specimens.

Because the steepness of the slope on the property and the complexity of construction, additional damage to trees may occur than is anticipated from this, my most current review of the plans. On the other hand, it is also possible that some trees may be damaged to a lesser extent than I have estimated. Part of tree protection on this project will involve dealing with site and tree conditions as they come up. We are going to have to do the best that we can in terms of tree protection, given the difficult nature of this site. Commitment and cooperation from the property owner, the project architects and the general contractor will be necessary for successful tree protection. The involvement of a project arborist[1] that will be on site frequently to monitor and assist in tree protection is essential.

The temporary access road through the site will cause some damage to the trees. This access road is necessary however, because equipment and materials have to enter and move around the site somehow. How much damage this road will cause to trees is difficult to accurately predict until this road is actually under construction. Some root damage, both direct (physical damage to roots due to vehicle or equipment impact) and indirect (soil compaction) is inevitable. Root damage can be reduced by using the smallest equipment possible (e.g. small bobcat backhoe, versus standard full-size equipment) and spreading a protective layer of gravel on the roadway path. Post construction remediation of soil compaction can be attempted via methods such as water jetting followed by mulching, although it is always best to avoid compaction in the first place. Damage to tree canopies and trunks is possible as well, although trunk damage should be preventable with proper tree protection fencing placed as far from the tree trunks as possible. Damage to canopies (branches) is possible and could be reduced by using the smallest equipment possible and knowing the height of the equipment and clearance needed for its travel, followed by careful construction clearance pruning.

[1] Terms highlighted at their first occurrence in this report are explained in the Glossary on pages 10 and 11.

I looked through some of the 9/12/13 plans, including sheet A-1.0, **Tree Canopy Coverage Area Studies**. Canopy coverage of the entire property is listed as 40%. This seems low, based upon the aerial photos on this same sheet. I looked at the property in Google Earth™ and found the most recent image which is dated 2/20/14. There are many shadows in the 2/20 image, which could cause an over-estimation of canopy cover. The second most recent Google Earth image is 4/2013, which is somewhat better (in terms of fewer shadows) but this is not the image included on plan sheet A-1.0. The plan pictures are good and seem to be taken at about noon so there are few or no shadows. In any case however, I think the canopy cover is greater than closer to 70% although this is a rough estimate and I did not perform any graphic analyses. I would like to know how the 40% canopy cover was calculated.

The trees on this site grow in a tight grove fashion; nearly covering the site with their canopies. It is going to be difficult to estimate the loss in canopy cover after trees to be removed are gone. I recommend we wait until those trees have indeed been removed and then re-assess the remaining canopy cover and whether or not any tree replanting is warranted here. The site is really overcrowded with trees. Many trees do not have good individual structure due to crowding and shading by neighboring trees. When existing trees are removed adjacent trees should be re-assessed as they may not be stable due to the greater exposure and reduced shelter.

Recommendations:

1. **Remove the following 10 trees: #1, 2,4,10, 11, 15, 16, 19, 20 and 21.**

2. **Save and protect the following 14 trees: #3, 5, 6, 7, 8, 9, 12, 13, 14, 17, 18, 22, 23 and 24.**

3. **For those trees that will be retained on the site, follow the *Town of Los Gatos General Tree Protection Directions*.** A separate copy of these Directions is attached and must be incorporated into the project final plans. Additional tree protection information is also available from Deborah Ellis if necessary. Remove the *Tree Protective Notes* on plan sheet C-3 and replace them with the Town's Directions. In the Tree Protection Details next to the Notes on sheet C-3 omit the trunk wrapping drawing because all trees will be fenced off from construction. Trunk wrapping should only be used when trees will not otherwise be fenced off from construction.

4. **Note the revised location for tree protection fencing** on the *Tree Map* in this report.

5. **An on-site supervising project arborist will be essential for this project.** A qualified consulting arborist (the project arborist) should be hired to monitor tree protection and supervise all work underneath the dripline of trees. This also applies to trees on neighboring properties whose canopies overhang the work site. Construction or landscaping work done underneath the dripline of existing trees should be done by hand to the extent possible, taking care to preserve existing roots in undamaged condition as much as possible and cutting roots cleanly by hand when first encountered, when those roots must be removed.

6. **For temporary access road construction**: use the smallest equipment possible, such as a small bobcat versus larger, standard-size heavy construction vehicles. Prior to bringing these vehicles on site, know their height and width of the equipment so that a qualified tree service can provide construction clearance pruning to allow for vehicle and equipment access while avoiding tree branch breakage. The access road should be as narrow as possible. Prior to access road construction, remove any trees to be removed, and large shrubs within the access road path. Then mow the pathway area if necessary, using a flail mower and cutting all vegetation down to a height of 6 inches or less. Cut vegetation may be left within the path area if it will not interfere with the geotectile fabric (next). After mowing, lay down an appropriate geotectile fabric product over the roadway path. The fabric should extend 12 – 18 inches beyond the sides of the access road. Then spread a 6-inch thick layer of 1/5 – 2-inch base rock material within the roadway path, on top of the geotectile fabric. Dump the rock, spread it and drive on it with a front-end loader bucket attached to a bobcat, and then repeat the process until the roadway has been completed, always keeping the backhoe on the gravel. Then spread a 6-inch layer of organic mulch material (wood or bark chips or tree trimming chippings) on top of the rock. All vehicles should then remain on the gravel/mulch within the access road. Minor alterations to this method may occur; but the goal is to establish a roadway that is suitable for construction vehicles but significantly reduces soil compaction by those vehicles.

7. **Equipment and material storage: all storage must take place in areas where the building itself or pavement outside the building (e.g. driveway, patios) will be constructed**. There shall be no storage within tree protection zones. Vehicles may not park on the project site except for within these areas or on the gravel-covered access road.

8. **If the current design is revised or additional improvement plans are prepared, as part of the design process, try to keep improvements (and any additional over-excavation or work area beyond the improvement) as far from tree trunks and canopies as possible.** 5xDBH or the dripline of the tree, whichever is greater, should be used as the minimum distance for any soil disturbance to the edge of the trunk. 3xDBH should be considered the absolute minimum distance from any disturbance to the tree trunk on one side of the trunk only, for root protection. Farther is better, of course. For disturbances on multiple sides of the trunk, then 5xDBH or greater should be used, and farther is also better here. Tree canopies must also be taken into consideration when designing around trees. Don't forget the minimum necessary working margin around improvements as you locate those improvements. Disturbance usually comes much closer to trees than the lines shown on the plans!

9. **The Town's Consulting Arborist should review all site-based plans for this project:** Additional improvements not shown on plans that were not reviewed may cause additional trees to be impacted and/or removed. Therefore the tree dispositions (*Save or Remove*) listed in this report may change if and when additional plans for this project are reviewed, or if plans that I have reviewed are revised. Plans reviewed by the arborist should be full-size, to-scale and with accurately located tree trunks and canopy driplines relative to proposed improvements. Scale should be 1:20 or 1:10.

10. **This site contains many oaks that are native to the immediate area** (coast live oak, *Quercus agrifolia* and valley oak, *Q. lobata*). All or most of these oaks are probably of natural growth. These tree species fares best with no irrigation during the normal dry months of the year. The best treatment of the ground beneath the canopies of native oaks is nothing but their own natural leaf and twig litter mulch. Exceptions to the general rule of irrigation restriction include during the winter in extended drought periods, as temporary compensation for root loss due to construction, and for newly planted trees during their 2 to 3 year establishment period after installation. Native oak species are often killed due to inappropriate landscaping that is installed around them; mostly commonly landscaping that requires frequent irrigation such as lawns or other high water-use plants. Large drought tolerant trees such as native oaks can become dangerous when exposed to frequent irrigation, especially close to their trunks. California native oaks that are treated in this manner may contract root rot diseases and fall over at the roots; often causing great damage and personal injury I there are targets in their vicinity such as homes, cars and people. It is important to landscape correctly around our native oaks; e.g. summer dry. I have attached a publication entitled *Living among the Oaks,* to assist in best managing the oaks on the property.

11. **Neighboring trees**: whose canopies overhang the project site must receive tree protection in the same manner as existing trees to remain on the project site; for example tree protection fencing and signage. The general contractor shall fence off the ground surface underneath the dripline of these trees as much as possible in order to avoid damaging branches and compacting the soil beneath the canopy. If pruning is necessary in order to avoid branch breakage, the general contractor shall hire a qualified tree service to perform the minimum necessary construction clearance pruning. Neighboring trees that require protection are: **#12, 13 and 14**.

12. **The remaining trees on site should be re-evaluated** after surrounding trees are removed.

13. **General Tree Maintenance**:
    a. **The root collars and lower trunks of some of the trees were obscured from view by vegetation, excess soil or other covering**. Such portions of the tree should be uncovered and the tree re-evaluated by the arborist.

b. **Do no unnecessary pruning, fertilization or other tree work.** Pre-construction pruning should be limited to the absolute minimum required for construction clearance. Some pre-construction clearance pruning will be necessary for this project. A qualified tree service should be hired to provide such pruning.

****

I certify that the information contained in this report is correct to the best of my knowledge, and that this report was prepared in good faith. Thank you for the opportunity to provide service again. Please call me if you have questions or if I can be of further assistance.

Sincerely,

Deborah Ellis

Deborah Ellis, MS.
Consulting Arborist & Horticulturist
Certified Professional Horticulturist #30022
ASCA Registered Consulting Arborist #305
I.S.A. Board Certified Master Arborist WE-457B

Enclosures:

- *Living among the Oaks – a Management Guide for Landowners.* Johnson. University of California Cooperative Extension, Natural Resources Program. No date.
- Los Gatos General Tree Protection Directions. Aug. 7, 2014.
- Los Gatos Tree Protection Sign Template (for tree protection signs to be placed on tree protection fencing)

Glossary:

1. **5xDBH** (3 to 5 X DBH): No one can estimate and predict with absolute certainty how far a soil disturbance such as an excavation must be from the edge of the trunk of an individual tree to effect tree stability or health at a low, moderate or severe degree -- there are simply too many variable involved that we cannot see or anticipate. 3xDBH however, is a reasonable "rule of thumb" minimum distance (in feet) any excavation should be from the edge of the trunk on one side of the trunk. This is supported by several separate research studies including (Smiley, Fraedrich, & Hendrickson 2002, Bartlett Tree Research Laboratories). DBH is trunk "diameter at breast height" (4.5 feet above the ground). This distance is often used during the design and planning phases of a construction project in order to estimate root damage to a tree due to the proposed construction. It tends to correlate reasonably well with the zone of rapid taper, which is the area in which the large buttress roots (main support roots close to the trunk) rapidly decrease in diameter with increasing distance from the trunk. For example, using the 3X DBH guideline an excavation should be no closer than 4.5 feet from the trunk of an 18-inch DBH tree. For trees with multiple trunks, an adjusted DBH is often calculated using 100% of the largest trunk plus 50% of the remaining smaller trunks. Such distances are guidelines only, and should be increased for trees with heavy canopies, significant leans, decay, structural problems, etc. I will generally not recommend a root protection distance of less than 3 feet for any tree, even very small trees. It is also important to understand that in actual field conditions we often find that much less root damage occurs than was anticipated by the guidelines. 3xDBH may be more of an aid in preserving tree stability and not necessarily long-term tree health. 5X DBH or greater is the "preferred" minimum distance which should be strived for, and this distance or greater should probably be used when there are multiple trenches on more than one side of the trunk. The roots beyond the zone of rapid taper form an extensive network of long, rope-like roots one to two inches in diameter. These woody perennial roots are referred to as transport roots because they function primarily to transport water and minerals. Maintaining a 5xDBH tree protection zone or greater around a tree will preserve more of these transport roots, which will have less of an impact on tree health than if the excavation were closer to the trunk.
2. **Dripline**: the area under the total branch spread of the tree, all around the tree. Although tree roots may extend out 2 to 3 times the radius of the dripline, a great concentration of active roots is often in the soil directly beneath this area. The dripline is often used as an arbitrary "tree protection zone".
3. **Grove**: is a group of trees that located close together that shelter each other from wind and the elements, having "knit" canopies. If of the same species, there is usually root grafting between trees, which lends support from the ground, as well as water and mineral sharing. Removal of one or some grove members could cause remaining members to be unstable due to a reduction of previous shelter. Grove trees often have asymmetrical canopies when viewed as individuals.
4. **Project Arborist: The arborist who is appointed to be in charge of arborist services for the project.** That arborist shall also be a *qualified consulting arborist* (either an International Society of Arboriculture (ISA) Board-Certified Master Arborist or an American Society of Consulting Arborists (ASCA) Registered Consulting Arborist) that has sufficient knowledge and experience to perform the specific work required. For most construction projects that work will include inspection and documentation of tree protection fencing and other tree protection procedures, and being available to assist with tree-related issues that come up during the project.

5. **Qualified Consulting Arborist**: must be either an International Society of Arboriculture (ISA) Board-Certified Master Arborist or an American Society of Consulting Arborists (ASCA) Registered Consulting Arborist that has sufficient knowledge and experience to perform the specific work required.
6. **Qualified Tree Service**: A tree service with a supervising arborist who has the minimum certification level of ISA (International Society of Arboriculture) Certified Arborist, in a supervisory position on the job site during execution of the tree work. The tree service shall adhere to the most current of the following arboricultural industry tree care standards:
   - ANSI A300 Pruning Standards. (Covers tree care methodology).
   - ANSI Z133.1 Safety Requirements for Arboricultural Operations. (Covers safety).
   - Best Management Practices, Tree Pruning. International Society of Arboriculture
7. **Root collar**: area at the base of the trunk (usually flared) where the roots and trunk merge; also called the root flare or root crown of the tree or shrub. Buttress roots (the main support roots of the tree) originate here and are often visible for a short distance above the ground. The root collar is critical to whole-tree health and stability.
8. **Root rot disease** is caused by wet, poorly aerated soil conditions. Degradation of roots (root rot) and sometimes the lower trunk (crown rot) ensues on weakened, susceptible plant species not adapted to such a soil environment. Opportunistic plant root pathogens (such as watermold fungi) are often the secondary cause of the problem. Root rot is a particular problem among drought tolerant plants that are not adapted to frequent irrigation during our normally rain-free months, such as many of our California native plants. The problem is often worsened in fine-textured heavy clay soils that retain water more than do the coarser, fast-draining soils such as occur in the natural environment of many of our native plants.
9. **Summer Dry**: Our native oak species are adapted to our "summer dry" climate. When the soil in their root system is kept moist during our normally dry months, these oaks are predisposed to attack by fungal root rot pathogens that are usually present in our soils. Therefore it is important to keep irrigation as far from the tree trunk (preferably beyond the mature dripline) as possible. The best landscape treatment underneath native oaks is non-compacted soil covered with a 3 to 4-inch depth of oak wood, leaf and twig litter (the tree's natural litter). Keep this mulch 6 to 12 inches away from the root collar (junction of trunk and roots). An exception to the no summer water rule would be newly planted oaks (for the first 2 to 3 years after planting, until they are "established") and also during droughts that occur during the normal rainy season.
10. **Water Jet**: (water probe, water needle, root feeder, hydrojet, etc.) is a hand-held metal probe, usually ½ to ¾ of an inch in diameter, with small side holes near the pointed tip end. The device is attached to a hose and the probe end with the holes is inserted into the ground by pushing on two perpendicular side handles at the top of the instrument. Water flows out of the holes horizontally, and a hole is also made vertically into the ground by the probe. The end result is the creation of vertical and horizontal tunnels filled with water and soft soil slurry. Water jetting probably does not increase soil aeration (diffusion of air through the soil), but it can help circumvent difficult water penetration of compacted, sealed soils or soil – especially on slopes. The probe creates voids in the soil that can more easily be penetrated by future irrigation and rain. The soft slurry created by the water jetting is also highly conducive to fine root growth. Contact D. Ellis for specific water jet instructions and to companies that can provide this work.

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Dan and Deborah Ross
188 Villa Ave
Los Gatos, CA 95030

March 21, 2016

Marni Mosley
Town of Los Gatos
Community Development Department
110 E. Main Street
Los Gatos, CA 95030

RE: 341 Bella Vista Avenue

Written Project Description and Letter of Justification.

HISTORY:

My name is Dan Ross. I have been a resident of Los Gatos for 16 years and currently live on Villa Ave. My family and I are wanting to build a home on Bella Vista in which to move. We have been working on this home approval process for more than 10 years.

There are currently two legal and buildable lots on Bella Vista Avenue, 339 and 341 Bella Vista Avenue. Both lots have been deemed by the Town to be legal and buildable from a legal, technical, geotechnical, policy and architectural perspective. In 2011, we applied for approval of two single family homes, one on each of the two lots. Sitting on 5,000 +/- sf lots each, the homes consisted of approximate 1838/1803 sf with 481/399 sf cellar and 441 sf garage, using the foundation area underneath the home and garage as living space, as permitted by Town Code. The total square footage of the previous proposed homes combined was 3641 sf plus 880 cellar = 4521 sf. total.

Although the previous application was recommended for approval by Town Planning Staff and Town Engineering based on similar homes in the neighborhood with zero lot lines, exceptions/variances to driveway length, setbacks, height, medium density, multifamily and condo/apartment zoning. The previous application was denied primarily based on:

1) Exceeding FAR, when accounting for 60% reduction of net site area required per Hillside Design Guidelines. We did reduce the square footage of the homes at our second Planning Commission meeting, utilizing the foundation area under the home and garage as living space. With allowable FAR of 800 +/- sf, the intention was to have an 800 sf +/- main level living area, and utilize the lower foundation/basement/cellar area as living space. The foundation was necessary, as stilts are not allowed by the Town.

2) As both front and rear setback exceptions were required, the proposed homes were deemed too large for site. The Planning Commission requested "significant reduction" of the size of the homes. There was a need for a driveway length variance. The driveway length did meet the Town requirement, when accounting for the distance from the property line to edge of

EXHIBIT 1 1

pavement. <u>When accounting for front and rear public easements, there was not a need for a front/rear setback exception or driveway variance.</u>

3) There was concern regarding the location of the driveway for the northerly house, relating to limited visibility along the slight curve on that portion of Bella Vista Avenue. Although lower in height than existing trees, there was concern this northerly house would tower over adjacent townhomes.

4) Planning Commissioners stated the Spanish and Craftsman style homes weren't "designed for the hill, we should pick an architectural style that is designed to the hill."

5) Planning Commission and neighbors stated one house would be more appropriate, the architectural style should be designed to the hill, there should not be a need for front and rear setback exceptions, and there should not be a need for a driveway variance.

NEW APPLICATION AND REVISED PROJECT DESCRIPTION:

In direct response to neighborhood, Planning Commission and Town Council direction we are proposing a lot merger to create one legal, conforming lot of 10,155 sf with one home vs. two homes, and complying with all Town Codes. The application includes a main level of 1,278 sf and a lower countable level of 185 sf for a total of 1,463 sf. The cellar of 1,179 sf which is permitted and encouraged by Town Code and is not counted in the sf to calculate FAR. The upper, lower area and cellar = 2,638 sf total. The Planning Commission, and Commissioner O'Donnell specifically, requested a significant reduction in sf. This new plan is reduced by 1883 sf or 42%, compared to the previous two home application. With one compliant driveway and one garage, vs two driveways and two garages.

1) <u>Complies with All Town Zoning Codes.</u> The house has been designed to and meets the Town of Los Gatos Zoning Code and Hillside Development Standards & Guidelines. The plan is compliant and meets FAR, height, front set back (per section 29.40.060), side set back and rear set back regulations. With 10,155 sf lot, 14% FAR and 13.4% lot coverage, we do not require nor are we requesting ANY Variances.

2) <u>Addresses Privacy.</u> Locating the house to the south reduces interface with adjacent townhouses, and allows the use of existing mature trees to screen the one townhouse to the west. We were able to achieve greater than the required 20' rear setback, with rear setbacks of 23'4" at the north corner and 36'4" at the south corner. This also allows us to locate the driveway in a safer location, away from the curve on Bella Vista Avenue, and meet the 15% max driveway slope requirement. Per HDS&G compliance checklist, page 4, section B: the outdoor activity areas have been moved away from neighbor quiet areas/bedrooms, second story windows have been minimized and oriented away from neighbors, the one small deck at back of home is less than 6' (per checklist) and intended to block downward views from inside the home, landscaping is used to screen views to neighbors, existing vegetation will remain. Section G1g states "screen noise sources: parking, outdoor activity." The garage will block sound and light from vehicles. The patios to the south near highway 9 are oriented away from the neighbors. Page 4, section E: Three story elevations are prohibited. The house itself is not three stories. The garage is angled so one corner at the rear, at 4' 9", is visible. This minimizes

the appearance of three story elevation. A garage is not required, we would prefer it for sound, light and appearance (storage of garage related items) benefits.

3) Retains More Trees on Site. All existing trees to the north will remain. The two trees in the building footprint require removal and are allowed to be removed in specific conformance to Town Code Town Code: Section 29.10.0990 (9) and 29.10.0955 which allows removal of trees within the building envelope - "Significant impact on a property from a tree means an unreasonable interference with normal and intended use of the property." The legal, normal and intended use of the property is in accordance with the Town General Plan and Zoning of R1-8, single family residential. While the Town consulting arborist has identified trees 10, 11, 16 and 21 to be removed, we seek to protect and work around these trees, with the intention of maintaining the wooded nature of the site and providing as much mature screening as possible relating to neighbors. The Town Arborist report states: "Most of the trees are not in good condition when evaluated individually because they have grown in crowded, shaded conditions for many years." We will work with Town Arborist and neighbors to plant additional trees, per landscape plan and Town Code, that provide the right amount of screening without too much shade. The neighbors were against us creating more shade. This plan will not create more shade.

4) Designed to Planning Commission and Council Direction. Planning Commissioners commented that the home should be "designed to the hill". The proposed design is common for hillside sites, in Los Gatos and other communities. Please see the plans for examples and inventory within our Town of many other similar structures. Exterior finish materials will include natural wood, warm tones, non-reflective materials and shielded exterior down lights. The house will sit below Bella Vista Avenue.

5) LRDA: For the purposes of the Least Restrictive Development Area, the home is sited in the most appropriate area within the building envelope, in the area furthest from the neighboring properties. Given the site and slope greater than 30%, the home is in the least impactful location.

COMPLIANCE WITH HILLSIDE DEVELOPMENT STANDARDS AND GUIDELINES:

1) House is not visible from Viewing Platforms.
2) House sits lower than existing tree heights, and won't block views of the Los Gatos hillsides or create new shade pattern.
3) Drainage plan to meet Town codes, per civil plan.
4) Natural wood exterior finish will blend with natural environment. Earth tone roof.
5) Existing mature trees will screen impact to adjacent townhome neighbor. Additional trees/shrubs to be added, as appropriate, per Town Code. The existing trees to the north and south of the home will remain. The olive tree between our home and Maggi Court home will remain. After meeting with neighbors on Bella Vista, we agree to plant trees that will screen power lines. The oak tree near the power pole will remain.
6) Original topography will be maintained.
7) Window type and location sensitive to privacy.
8) Overhang is modest, building is stepped with slope.
9) We are using below grade rooms.
10) We are using horizontal and vertical building components.

11) Minimalist style minimizes bulk, mass and volume of home.
12) No perimeter fencing proposed, unless needed for privacy.
13) House has been moved furthest from adjacent properties.
14) Natural features will be preserved on 86.6% of the lot. (13.4% lot coverage).
15) The home/submittal should "protect and preserve viewsheds and the ridgelines of the mountains." This home will be lower in height than the existing trees, follows the contour of the hill and is set down slope from the street. It is not on a ridgeline. As stated on Page 7 of the HDS&G: D. Applicability and Approval Process: The Hillside Development Standards and Guidelines apply to the areas shown on the Hillside Area Map. The map includes all areas with HR and RC zoning, and some lots with R-1 zoning. The R-1 lots are included because of the presence of a hillside environment and/or steep slopes. The subject parcel appears to be included in the HDS&G due to slope, not due to being in the hills of Los Gatos. See Hillside Area Map. This parcel is not in the mountains, not on a ridgeline. It is in an urban setting, in the middle of Town, immediately adjacent to Highway 9/Los Gatos Saratoga Road, a motel, medium density attached townhomes, as well as single and multi-family and condominium homes. You can see/hear Highway 17 and Highway 9/Los Gatos Saratoga Road from this setting. The proposed home will not be seen from Town designated Viewing Platforms or Valley Floor.

NEIGHBORHOOD COMPATIBILITY:

1) The neighborhood on Bella Vista Avenue is made up of one and two story single family detached homes, duplexes, houses with back yard cottages/apartments and condominiums on flag lots. The proposed lot is the largest lot on the west side of Bella Vista and one of the largest lots on the street. The townhomes on Maggi Court immediately adjacent to the proposed home are medium density residential, 3 stories in height and 35' tall. They are attached to each other and/or 7' apart, with 1650 sf living area and 550 sf garages on 1307 sf lots. The FAR = 126%, not counting the garage. Each also has attached third story exterior patios/decks. Maggi Court townhomes have reduced setbacks and driveway variances. The Maggi Court project was built on land zoned R-1:8, single family homes on 8000 sf lots. The Maggi Court project received an exception or variance to be rezoned for medium density, 35' tall townhomes, along with 126% FAR.

2) Our proposed home complies with the Town's Zoning Code and requires no General Plan Amendment, no Zoning Code Amendment, no Planned Development Zoning and no Variances.
    a. The proposed home has only a 14.6% FAR. The home has been designed to have minimal lot coverage of only 13.4% on 10,155 sf lot.
    b. The home meets the Town's height requirements and will sit below Bella Vista Avenue. The height at the rear north corner of the house is 22' 1" and 17' 6" at the south rear corner.
    c. The application meets the Town' setback requirements. The rear setback is 23' 4" at the north corner and 36' 4" at the south corner. Side setback also comply with the Town's Zoning Code. The path/easement at north side of home creates more distance from townhomes.
    d. The home is designed to minimize the need to use the rear yard and side yard to the north for decking and outside entertaining, to minimize the impact on the townhome neighbors.

e. It appears to be the largest lot, and the driveway appears to be the longest driveway on the west/down slope side of Bella Vista. The two on-street parking spaces on Bella Vista Avenue will remain, which will help with neighborhood parking.

3) The high quality, minimalist style minimizes impact on neighbors. This style is in response to Planning Commission request to design a home style that fits the hill.

4) The Town's Consulting Architect supports the design and architecture.

5) See Sheet A.1.1 for neighborhood compatibility data.

PRIVACY:

1) The house has been placed on the part of the lot that is furthest from the adjacent townhomes. Existing mature trees and plants between our home and the townhome to the west will remain. Fencing adjacent to the downstairs bedrooms will block views. Window placement and planter boxes minimize direct views. The kitchen window has privacy "fins" that block views to the right and left. The view from that window will be of our parcel and the road between the townhomes. See landscape plan for landscape screening. See architectural plans for sight line details, mass and scale, and distances between our home and neighbors. Utilizing the exterior space that is part of the structure minimizes the need for more intrusive decks and patios in the back yard and side yard to the north. The small deck on the roof of the home has permanent planter boxes that block downward views. The view will be over the olive tree and townhome rooftop. We are open to glass wall to screen sound. The Town's Consulting Engineer has commented that as an extra measure of stability, the house foundation should not retain the hill. The retaining wall at the front of the house and on the south side of the house is in response to this request. Again, the resulting patio area is closest to highway 9, minimizing the need for decking/patios at the back of house and north of house, which would have a greater impact on townhome neighbors. This is an effort to push outdoor activities as far away from neighbors as possible.

GARAGE DESIGN:

A garage is not required. We have designed the roof to be sloped from front to back, with the rear wall of the garage lowered to 4' 9" +/-. This is intended to minimize the appearance of height from the rear of the property. If the Town would like limit potential or perceived third story dimension, one alternative is to eliminate the garage, which could expose garbage cans, storage containers, bikes, garden tools, vehicles.... all the items people normally keep in their garage. Also, the garage will serve as a noise and light buffer from vehicles in the driveway. While the Town has previously approved similar garages for similar sites (52 Oak Hill) and it is not our preference to remove the garage, and we don't think it makes sense, we are willing to remove the garage if the Planning Commission desires.

CONSTRUCTION MANAGEMENT:

The mandatory Town construction management plan will be implemented. We currently live on Villa Avenue, backing to Oak Hill. We watched the home at 52 Oak Hill get built, San Jose Water Company site, Sister of the Holy Names site, Blue Bird Lane, Town Library and many others within the last few years. As evidenced by 52 Oak Hill, which overlooks other homes, and Villa Avenue, projects like ours have been approved and built during the time frame we have been working on our project, that were also subject to the Hillside Development Standards Guidelines. That parcel is similar in size to ours, appears to be steeper than our lot and the home was approved with rear facing covered patios, and a third level garage with an additional parking space to the side of the garage. Our proposed home is smaller than this, and we are not asking for the additional parking space. Oak Hill Road is sloped, and narrower than Bella Vista Avenue. We will meet the Town requirements regarding construction logistics.

COMMUNITY BENEFIT:

1) **This home will not create more than five net new peak hour traffic trips. Therefore, the Town's Community Benefit policy is not applicable.**

CONSULTATION WITH NEIGHBORS/NEIGHBOR CONCERNS:

1) **We have notified neighbors of our plans in the past, have done so again and offered to meet with any neighbor to review our plans. Pat Tillman/Attorney stated he is the spokesperson for the Maggi Court neighbors, and that the neighbors would NOT meet with me individually. He stated that any communication should be through him. Neighbors Ms. Chin and Mr. Straight did not disagree with that statement, and I have not heard from them. Each time I have interacted with a neighbor I have expressed an openness and willingness to meet. None have not contacted me. I recently left a message for Mr. Tillman, he did not return my call. In the past, Mr. Tillman conducted a group meeting in his home (regarding the previous submittal), where he put me in a folding chair against a wall and basically deposed me and my wife for 90 minutes. It was not a two-way dialogue. There was at least one additional Attorney in the room. In past attempts, neighbors have not responded to my letters, have been unwilling to meet individually to address individual concerns, and group meetings have been hostile toward me and my family. At hearings and in group meetings I have been verbally attacked, badgered and threatened. For reference, please look at old letters on file and previous Planning Commission meeting minutes.**

2) **I did receive a call from a neighbor who lives in the adjacent Maggi Court Homeowners Association. This person won't speak publicly for fear of retribution, but stated: "We live in townhomes, our homes are connected and very close to neighbor units. Our patios and balconies are connected, we share walls, we see into our neighbor's homes, patios, balconies. We hear each other, we hear our neighbors air conditioning units and hear and feel the vibration of our attached neighbor's garage door. We hear traffic from LG/Saratoga**

Road/Hwy 9 and Hwy 17. This is an urban setting. Our neighbors on the other side of us are apartments, condos and a motel. Passerby's can see into the units from Bella Vista Avenue. Your home is further from us than we are from each other. This notion that the neighbors have the privilege of absolute privacy is flawed. Looking at the size of your home compared to the size of your lot, and the size of our homes compared to our lots? Seeing what we got, and what's going on around town, you should be building four townhomes! We had the right to build our homes, and you should have the right to build your home."

3) Despite the above, I have always been respectful to my neighbors and the Town and the proposed home takes into consideration the public comments made by neighbors, Town Planning Commission and Town Council. It is unfortunate that the original builder, previous homeowners and/or Realtors did not disclose that there are two legal buildable lots adjacent to some neighbors' homes. While some neighbors may want nothing to be built on these two lots, the lots are legal and buildable and we have presented a thoughtful plan that complies with Town Code, requires no Variances and directly responds to previous input. As we have notified neighbors of our final plans, I hope they will take a respectful approach and recognize that we have been responsive to specific issues raised previously.

SUMMARY:

The previous application was denied based on the request for significant reduction in sf, the need for front and rear setback exceptions and a driveway length variance.

Response: The square footage has been reduced 42% and meets Town FAR requirements. The plan meets the Town height, setback and driveway length requirements. The driveway has been oriented to the straightest part of the road, with the most visibility.

I've worked in Los Gatos since 1989, my wife and I started our family here in 2000. Our friends from the neighborhood, Van Meter School, Fisher Middle School, Los Gatos High School, Cornerstone, Adventure Guides, and many others can see what has been built around this site. We ask that Town leadership review the facts, remove the emotions and approve this compliant home as proposed.

While there may be some new decision makers on the Planning Commission and Town Council, we want to be clear that this one lot, one home proposal is not the beginning of the process but the compromise solution. While I am reserving the right and option to retain two lots for development if this proposal is not approved, the proposed design addresses specific issues raised previously and we request that the proposed home be approved as proposed.

Please review plans and don't hesitate contact us with any questions. Our design and technical team is available as well.

Best regards,

Dan Ross
408-314-5626

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RESOLUTION 2012-057

**RESOLUTION OF THE TOWN COUNCIL
OF THE TOWN OF LOS GATOS
DENYING APPEALS OF A PLANNING COMMISSION DECISION DENYING A REQUEST FOR A LOT LINE ADJUSTMENT BETWEEN TWO PARCELS, VARIANCE FOR DRVIVEWAY LENGTH AND TO CONSTRUCT TWO SINGLE-FAMILY RESIDENCES ON PROPERTY ZONED R-1:8**

**APNs: 529-23-015 AND 529-23-016
SUBDIVISION APPLICATION M-06-009
VARIANCE APPLICATION: V-11-001
ARCHITECTURE AND SITE APPLICATIONS S-06-046 AND S-06-064
PROPERTY LOCATION: 339 AND 341 BELLA VISTA AVENUE
PROPERTY OWNER/APPLICANT: DAN ROSS AND JAKE PETERS
APPELLANT: DAN ROSS**

WHEREAS, this matter came before the Town Council for public hearing on April 2, 2012, and was regularly noticed in conformance with State and Town law.

WHEREAS, Council received testimony and documentary evidence from the appellant and all interested persons who wished to testify or submit documents. Council considered all testimony and materials submitted, including the record of the Planning Commission proceedings and the packet of material contained in the Planning Commission Reports dated October 12, 2011 and February 8, 2012, along with subsequent reports and materials prepared concerning this application.

WHEREAS, the applicant proposed a lot line adjustment between two lawfully created, non-conforming parcels (less than 8,000 square feet), a variance for reduced driveway lengths, and to construct two new single-family homes on property zoned R-1:8. Surrounding properties on Bella Vista Avenue are developed with single-family homes and the property below the site on Maggi court is developed with medium density townhomes.

EXHIBIT 1 2

WHEREAS, the Planning Commission last considered the applications on February 8, 2012, and voted to deny the Subdivision, Variance, and Architecture and Site applications based on concerns about the proposed house size, bulk and mass at the rear, reduced setbacks and pedestrian safety on Bella Vista.

WHEREAS, the applicant appealed the decision of the Planning Commission based on his belief that the Planning Commission erred in its decision in stating that the denial was based on home sizes of 2,400 square feet, a variance for the rear yard setback (when such variance is not being requested), a perceived safety concern with the driveways was not substantiated by fact, and that project opposition was factored into the denial.

WHEREAS, the Council has determined that the Planning Commission did not err in its decision in that the proposed residences do not comply with the allowable FAR for the properties, the reduction in house size was not significant as requested by the Commission on October 12, 2011, and the bulk and mass at the rear of the houses was not reduced.

NOW THEREFOR, BE IT RESOLVED THAT the appeals of the decision of the Planning Commission on Subdivision application M-06-009, Variance application V-11-001 and Architecture and Site applications S-06-046 and S-06-064 are hereby denied.

BE IT FURTHER RESOLVED the decision constitutes a final administrative decision pursuant to Code of Civil Procedure section 1094.6 as adopted by section 1.10.085 of the Town Code of the Town of Los Gatos. Any application for judicial relief from this decision must be sought within the time limits and pursuant to the procedures established by Code of Civil Procedure section 1094.6, or such shorter time as required by State and Federal Law.

BE IT FURTHER RESOLVED that the applicant may pay full time and materials up to the cost of regular fees on any future application filed by the appellant for the project site.

PASSED AND ADOPTED at a regular meeting of the Town Council of the Town of Los Gatos, California, held on the 2nd day of April 2012, by the following vote:

COUNCIL MEMBERS:

AYES: Steven Leonardis, Diane McNutt, Joe Pirzynski, Barbara Spector, and Mayor Steve Rice

NAYS:

ABSENT:

ABSTAIN:

SIGNED:
MAYOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

ATTEST:
CLERK ADMINISTRATOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

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