



DATE: June 4, 2014

AGENDA ITEM # 5

TO: Design Review Commission
FROM: Sean K. Gallegos, Assistant Planner
SUBJECT: 13-SC-29 – 542 Benvenue Avenue

RECOMMENDATION:

Approve design review application 13-SC-29 subject to the listed findings and conditions

PROJECT DESCRIPTION

This is a design review application for a new two-story, single-family house. The proposed project will demolish an existing one-story house and construct a new house with 1,789 square feet on the first story and 1,026 square feet on the second story. The following table summarizes the project:

GENERAL PLAN DESIGNATION: Single-family, Residential
ZONING: R1-10
PARCEL SIZE: 8,106 square feet
MATERIALS: Asphalt shingle roof, smooth finish stucco, wood trim, aluminum clad wood windows, wood garage door and

	Existing	Proposed	Allowed/Required
LOT COVERAGE:	1,303 square feet	2,133 square feet	2,431 square feet
FLOOR AREA:			
First floor	1,264 square feet	1,789 square feet	
Second floor		1,026 square feet	
Total	1,264 square feet	2,815 square feet	2,837 square feet
SETBACKS:			
Front	25 feet	25 feet	25 feet
Rear	69 feet	41 feet	25 feet
Exterior side	7.2 feet	6.5 feet/15 feet	10 feet/17.5 feet
Left side	14 feet	7.75 feet/15 feet	10 feet/17.5 feet
HEIGHT:	13	24 feet	27 feet

BACKGROUND

The property is in a Consistent Character Neighborhood as defined in the City's Residential Design Guidelines. The homes in the neighborhood are a mix of older one-story Ranch style and newer two-story, single-family homes, with low wall plate heights and simple roof forms (low-pitched gable and hipped roofs), rustic materials, with wood siding dominant. The structures are similar in massing and building footprint with a uniform pattern of 25- to 30-foot front yard setbacks. While there is not a distinctive street tree pattern on the street, there are many large trees it.

DISCUSSION

According to the Design Guidelines, in Consistent Character Neighborhoods, good neighbor design has design elements, materials and scale found within the neighborhood and sizes that are not significantly larger than other homes in the neighborhood. This requires a project to fit in and lessen abrupt changes.

Though architecturally different from other homes in the area, the project uses design elements such as hip and gable roofs, a recessed front porch and high quality materials that are compatible with the neighborhood. The steep-pitched hipped roof is truncated to meet the daylight plane; however, the form of the roof conceals the second story thereby minimizing its profile. Gables with eave returns and dormers are used throughout the design, which is in-keeping with the Neo-French style of the building. The building materials, which include: stucco siding, composition shingle roofing, wood trim, and wood garage door, are compatible with the design style and relate to the surrounding area.

The project's scale, as compared to surrounding structures, is in-keeping with the character of the neighborhood. The nine-foot tall walls on the first floor of the house are a reasonable transition from the modest scale of other houses in the neighborhood. As discussed above, the steep-pitched hipped roof conceals the second story thereby minimizing its scale. Overall, the two-story design does not create an abrupt change and is well proportioned and articulated to reduce the effect of bulk and mass when viewed from the street.

Privacy and Landscaping

On the left (east) side elevation of the second story, there are six windows: three windows are located in the master bathroom with four-foot, six-inch, sill heights, one window is located in the hallway with a three-foot sill height, and two windows are located in a bedroom No. 2 with three-foot sill heights. The windows in the hallways and bedroom No. 2 face the side of the house at 552 Benvenue Avenue and its rear yard, which may create privacy impacts because the sill height allows views into the adjacent property. To provide additional privacy screening, the applicant is proposing new evergreen screening trees along the side property line. As designed and with the recommended conditions, staff finds that the project will maintain a reasonable degree of privacy.

On the right (west) side elevation of the second story, there are eight windows: three located in the master bathroom, two located in the hall bathroom, and three located in bedroom No. 3. These windows propose a sill height of four feet, six inches, which makes it difficult to view out of the window and down into the adjacent property. Due to their placement and sill heights, the proposed second story right side elevation windows do not create unreasonable privacy impacts.

The rear (south) second story elevation includes two windows: one in the bedroom No. 2 with three-foot, six-inch sill heights and one in bedroom No. 3 with a three-foot sill height. The project also includes a balcony off the master bedroom. The balcony is 8 feet wide and 4 feet deep, primarily faces the rear yard, but has some exposure to the side property line. As outlined in the Residential Design Guidelines, limiting the depth of a balcony to four feet will create a more passive use area that is less likely to create a privacy impact. In order to avoid any unreasonable privacy impacts, the applicant has also worked with staff to incorporate fast growing screening trees along the left and rear property line (Condition No. 3). Therefore, as designed, and with the recommended condition, staff finds that the project maintains a reasonable degree of privacy.

There are two trees, a coastal live oak (tree No. 1) and deodar cedar (tree No. 2), on the property, not including one coastal live oak tree (tree No. 3) on a neighboring property. The project proposes the removal of tree No. 2 in the front yard due to the location of the proposed driveway and its poor condition. The applicant has worked with staff to improve the viability of Tree No. 1 by increasing the structure's front yard setback to avoid the tree's critical root zone, and substituting gravel for decomposed granite within the dripline. Tree protection guidelines will be followed to maintain tree No. 1, and tree No. 3 due to the tree's dripline extending into the subject site (Condition 6c).

ENVIRONMENTAL REVIEW

This project is categorically exempt from environmental review under Section 15303 of the Environmental Quality Act because it involves the construction of a single-family land use.

Cc: James Madson, Designer
Will and Jill Woodford, Owner

Attachments:

- A. Application
- B. Neighborhood Compatibility Worksheet
- C. Area Map and Vicinity Map
- D. Arborist Report, Ray Morneau

FINDINGS

13-SC-29—542 Benvenue Avenue

With regard to design review for the two-story structure, the Design Review Commission finds the following in accordance with Section 14.76.050 of the Municipal Code:

- a. The proposed structure complies with all provision of this chapter;
- b.]The height, elevations, and placement on the site of the proposed structure, when considered with reference to the nature and location of residential structures on adjacent lots, will avoid unreasonable interference with views and privacy and will consider the topographic and geologic constraints imposed by particular building site conditions;
- c. The natural landscape will be preserved insofar as practicable by minimizing tree and soil removal; grade changes shall be minimized and will be in keeping with the general appearance of neighboring developed areas;
- d. The orientation of the proposed structure in relation to the immediate neighborhood will minimize the perception of excessive bulk;
- e. General architectural considerations, including the character, size, scale, and quality of the design, the architectural relationship with the site and other buildings, building materials, and similar elements have been incorporated in order to insure the compatibility of the development with its design concept and the character of adjacent buildings; and
- f. The proposed structure has been designed to follow the natural contours of the site with minimal grading, minimum impervious cover, and maximum erosion protection.

CONDITIONS

13-SC-29—542 Benvenue Avenue

1. The approval is based on the plans received on May 19, 2014 and the written application materials provided by the applicant, except as may be modified by these conditions.
2. Tree No. 1 shall be protected under this application and cannot be removed without a tree removal permit from the Community Development Director.
3. The applicant shall provide a landscape plan showing a fast growing evergreen screenings trees along the east, west and south property lines. The plants shall be a minimum of 15-gallon, or 24-inch box in size.
4. The applicant shall obtain an encroachment permit issued from the Engineering Division prior to doing any work within the public street right-of-way.
5. **Prior to the issuance of a demolition permit**, install tree protection fencing around the dripline, or as required by the project arborist, of the following trees (22-inch coast live oak tree, and 31-inch coast live oak tree) as shown on the site and landscape plan. Tree protection fencing shall be chain link and a minimum of five feet in height with posts driven into the ground.
6. **Prior to building permit submittal, the project plans shall contain/show:**
 - a. The conditions of approval shall be incorporated into the title page of the plans.
 - b. A revised arborist report shall be provided that assesses the risk of construction related impacts of the structure, foundation and driveway to the health of the 22-inch coast live oak tree. Project specific mitigation measures shall be provided to preserve the coast live oak tree.
 - c. On the grading plan and/or the site plan, show all tree protection fencing and add the following note: "All tree protection fencing shall be chain link and a minimum of five feet in height with posts driven into the ground." The tree protection fencing shall be installed prior to issuance of the demolition permit and shall not be removed until all building construction has been completed.
 - d. Verification that the house will comply with the California Green Building Standards pursuant to Section 12.26 of the Municipal Code from a Qualified Green building Professional.
 - e. Fire sprinklers to be installed pursuant to Section 12.10 of the Municipal Code.
 - f. The location of underground utilities pursuant to Section 12.68 of the Municipal Code. Underground utility trenches should avoid the drip-lines of all protected trees.

- g. The location of any air conditioning units on the site plan and the manufacturer's sound rating for each unit.
- h. The location of any water backflow preventers and screening to mitigate such facilities.
- i. Compliance with the New Development and Construction Best Management Practices and Urban Runoff Pollution Prevention program, as adopted by the City for the purposes of preventing storm water pollution (i.e. downspouts directed to landscaped areas, minimize directly connected impervious areas, etc.).

7. Prior to final inspection:

- a. All front yard landscaping, street trees and privacy screening shall be maintained and/or installed as required by the Planning Division.
- b. Submit verification that the house was built in compliance with the City's Green Building Ordinance (Section 12.26 of the Municipal Code).



ATTACHMENT A

CITY OF LOS ALTOS GENERAL APPLICATION

Type of Review Requested: *(Check all boxes that apply)*

Permit # 1105860

<input type="checkbox"/>	One-Story Design Review	<input type="checkbox"/>	Sign Review	<input type="checkbox"/>	Multiple-Family Review
<input checked="" type="checkbox"/>	Two-Story Design Review	<input type="checkbox"/>	Sidewalk Display Permit	<input type="checkbox"/>	Rezoning
<input type="checkbox"/>	Variance(s)	<input type="checkbox"/>	Use Permit	<input type="checkbox"/>	R1-S Overlay
<input type="checkbox"/>	Lot Line Adjustment	<input type="checkbox"/>	Tenant Improvement	<input type="checkbox"/>	General Plan/Code Amendment
<input type="checkbox"/>	Tentative Map/Division of Land	<input type="checkbox"/>	Preliminary Project Review	<input type="checkbox"/>	Appeal
<input type="checkbox"/>	Subdivision Map Review	<input type="checkbox"/>	Commercial Design Review	<input type="checkbox"/>	Other:

Project Address/Location: 542 Benvenue Ave., LOS ALTOS

Project Proposal/Use: 2 story single family home

Current Use of Property: Single Family home

Assessor Parcel Number(s) 189-52-062

Site Area: 8106 Total Existing Square Feet: 939

Total Proposed Square Feet (including basement): 4074

Applicant's Name: Will and Jill Woodford

Home Telephone #: 650-941-1085 Business Telephone #: _____

Mailing Address: 542 Benvenue Ave.

City/State/Zip Code: Los Altos, CA 94024

Property Owner's Name: Will and Jill Woodford

Home Telephone #: 650-941-1085 Business Telephone #: _____

Mailing Address: 542 Benvenue Ave.

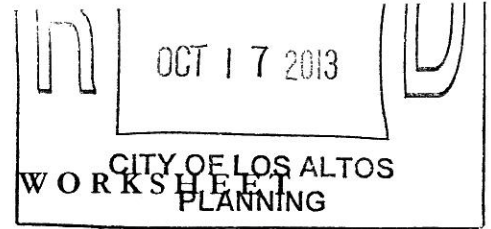
City/State/Zip Code: Los Altos, CA 94024

Architect/Designer's Name: James Madson Telephone #: 916-996-3922

*** If your project includes complete or partial demolition of an existing residence or commercial building, a demolition permit must be issued and finalized prior to obtaining your building permit. Please contact the Building Division for a demolition package. ***

(continued on back)

13-SC-29



NEIGHBORHOOD COMPATIBILITY WORKSHEET

In order for your design review application for single-family residential remodel/addition or new construction to be successful, it is important that you consider your property, the neighborhood's special characteristics that surround that property and the compatibility of your proposal with that neighborhood. **The purpose is to help you understand your neighborhood before you begin the design process with your architect/designer/builder or begin any formal process with the City of Los Altos.** *Please note that this worksheet must be submitted with your 1st application.*

The Residential Design Guidelines encourage neighborhood compatibility without necessarily forsaking individual taste. Various factors contribute to a design that is considered compatible with a surrounding neighborhood. The factors that City officials will be considering in your design could include, but are not limited to: design theme, scale, bulk, size, roof line, lot coverage, slope of lot, setbacks, daylight plane, one or two-story, exterior materials, landscaping et cetera.

It will be helpful to have a site plan to use in conjunction with this worksheet. Your site plan should accurately depict your property boundaries. The best source for this is the legal description in your deed.

Photographs of your property and its relationship to your neighborhood (see below) will be a necessary part of your first submittal. Taking photographs before you start your project will allow you to see and appreciate that your property could be within an area that has a strong neighborhood pattern. The photographs should be taken from across the street with a standard 35mm camera and organized by address, one row for each side of the street. Photographs should also be taken of the properties on either side and behind your property from on your property.

This worksheet/check list is meant to help *you* as well as to help the City planners and Planning Commission understand your proposal. Reasonable guesses to your answers are acceptable. The City is not looking for precise measurements on this worksheet.

Project Address 542 Benvenue Avenue

Scope of Project: Addition or Remodel _____ or New Home

Age of existing home if this project is to be an addition or remodel? _____

Is the existing house listed on the City's Historic Resources Inventory?

NO

Address: 542 Bellevue Ave.
Date: 1/15/2013

What constitutes your neighborhood?

There is no clear answer to this question. For the purpose of this worksheet, consider first your street, the two contiguous homes on either side of, and directly behind, your property and the five to six homes directly across the street (eight to nine homes). At the minimum, these are the houses that you should photograph. If there is any question in your mind about your neighborhood boundaries, consider a radius of approximately 200 to 300 feet around your property and consider that your neighborhood.

Streetscape

1. Typical neighborhood lot size*:

Lot area: 8100 - 8900 square feet
Lot dimensions: Length 128 - 140 feet
Width 63 feet

If your lot is significantly different than those in your neighborhood, then note its: area , length , and width .

2. Setback of homes to front property line: (Pgs. 8-11 Design Guidelines)

Existing front setback if home is a remodel? 25'
What % of the front facing walls of the neighborhood homes are at the front setback 100%
Existing front setback for house on left 25 ft./on right 25 ft.
Do the front setbacks of adjacent houses line up? yes

3. Garage Location Pattern: (Pg. 19 Design Guidelines)

Indicate the relationship of garage locations in your neighborhood* only on your street (count for each type)
Garage facing front projecting from front of house face 4
Garage facing front recessed from front of house face 1
Garage in back yard 3
Garage facing the side 2
Number of 1-car garages 0; 2-car garages 9; 3-car garages 0

Address: 542 Benu ue Ave.
Date: 1/15/2013

4. Single or Two-Story Homes:

What % of the homes in your neighborhood* are:

One-story 44

Two-story 56

5. Roof heights and shapes:

Is the overall height of house ridgelines generally the same in your neighborhood*? yes NO

Are there mostly hip , gable style , or other style roofs*?

Do the roof forms appear simple or complex ?

Do the houses share generally the same eave height yes?

6. Exterior Materials: (Pg. 22 Design Guidelines)

What siding materials are frequently used in your neighborhood*?

wood shingle stucco board & batten clapboard
 tile stone brick combination of one or more materials
(if so, describe) stucco^{wood} with stone decoration @ base

What roofing materials (wood shake/shingle, asphalt shingle, flat tile, rounded tile, cement tile, slate) are consistently (about 80%) used?

If no consistency then explain: wide variety; wood shingle, composite, concrete, clay tiles

7. Architectural Style: (Appendix C, Design Guidelines)

Does your neighborhood* have a consistent identifiable architectural style?

YES NO

Type? Ranch Shingle Tudor Mediterranean/Spanish
 Contemporary Colonial Bungalow Other

Address: 542 Benvue Ave.
Date: 1/15/2013

8. Lot Slope: (Pg. 25 Design Guidelines)

Does your property have a noticeable slope? No

What is the direction of your slope? (relative to the street)
parallel

Is your slope higher _____ lower _____ same in relationship to the neighboring properties? Is there a noticeable difference in grade between your property/house and the one across the street or directly behind? No

9. Landscaping:

Are there any frequently used or typical landscaping features on your street (i.e. big trees, front lawns, sidewalks, curbs, landscape to street edge, etc.)?
NO

How visible are your house and other houses from the street or back neighbor's property?

Most homes are easily visible.

Are there any major existing landscaping features on your property and how is the unimproved public right-of-way developed in front of your property (gravel, dirt, asphalt, landscape)?

Mature trees exist. The right of way has gravel as well as landscaping.

10. Width of Street:

What is the width of the roadway paving on your street in feet? 30

Is there a parking area on the street or in the shoulder area? yes

Is the shoulder area (unimproved public right-of-way) paved, unpaved, gravel, landscaped, and/or defined with a curb/gutter? Mostly gravel

with some landscaping. One home has paved that area.

Address: 542 Benve e Ave.

Date: 1/15/2013

11. What characteristics make this neighborhood* cohesive?

Such as roof material and type (hip, gable, flat), siding (board and batten, cement plaster, horizontal wood, brick), deep front yard setbacks, horizontal feel, landscape approach etc.:

Setbacks are consistent. Homes are horizontal wood siding or stucco. Right of way along street is gravel and landscaping mix, several large trees in front yards. A few homes have a small grassy area in front yard.

General Study

- A. Have major visible streetscape changes occurred in your neighborhood?
 YES NO
- B. Do you think that most (~ 80%) of the homes were originally built at the same time?
 YES NO
- C. Do the lots in your neighborhood appear to be the same size?
 YES NO
- D. Do the lot widths appear to be consistent in the neighborhood?
 YES NO
- E. Are the front setbacks of homes on your street consistent (~80% within 5 feet)?
 YES NO
- F. Do you have active CCR's in your neighborhood? (p.36 Building Guide)
 YES NO
- G. Do the houses appear to be of similar size as viewed from the street?
 YES NO
- H. Does the new exterior remodel or new construction design you are planning relate in most ways to the prevailing style(s) in your existing neighborhood?
 YES NO

Address: 542 Benvenue Ave.
 Date: 1/15/2013

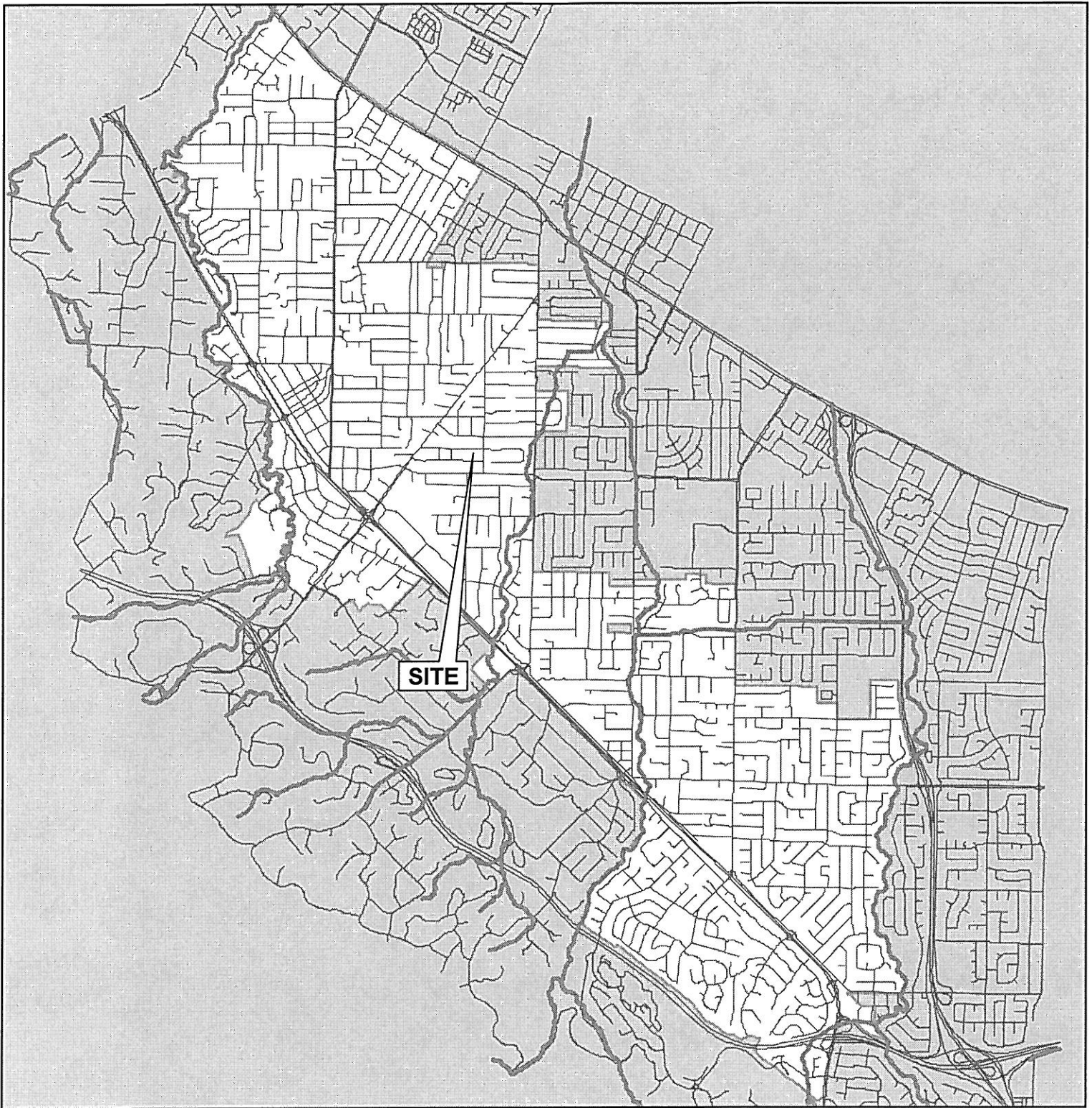
Summary Table

Please use this table to summarize the characteristics of the houses in your immediate neighborhood (two homes on either side, directly behind and the five to six homes directly across the street).

Address	Front setback	Rear setback	Garage location	One or two stories	Height	Materials	Architecture (simple or complex)
532 Benvenue Ave.	25'		Rear	1	14'	Stucco, wood Shale roof	Simple
520 Benvenue Ave.	25'		Rear	2	25'	Wood siding, Composite roof	Simple
552 Benvenue Ave.	25'		Recessed Back	1	14'	Stucco, Composite roof	Simple
562 Benvenue Ave.	25'		Side	1	13'	Wood siding, Composite roof	Simple
386 S. Clark	25'		Side	2	24'	Wood siding, Composite roof	Complex
555 Benvenue Ave.	25'		Front	2	25'	Stucco, Composite roof	Simple
543 Benvenue Ave.	25'		Rear	1	16'	Stucco, wood Shale roof	Simple
531 Benvenue Ave.	25'		Front	2	24'	Stucco, clay tile roof	Complex
521 Benvenue Ave.	25'		Front	2	25'	Stucco, clay tile roof	Simple

ATTACHMENT C

AREA MAP



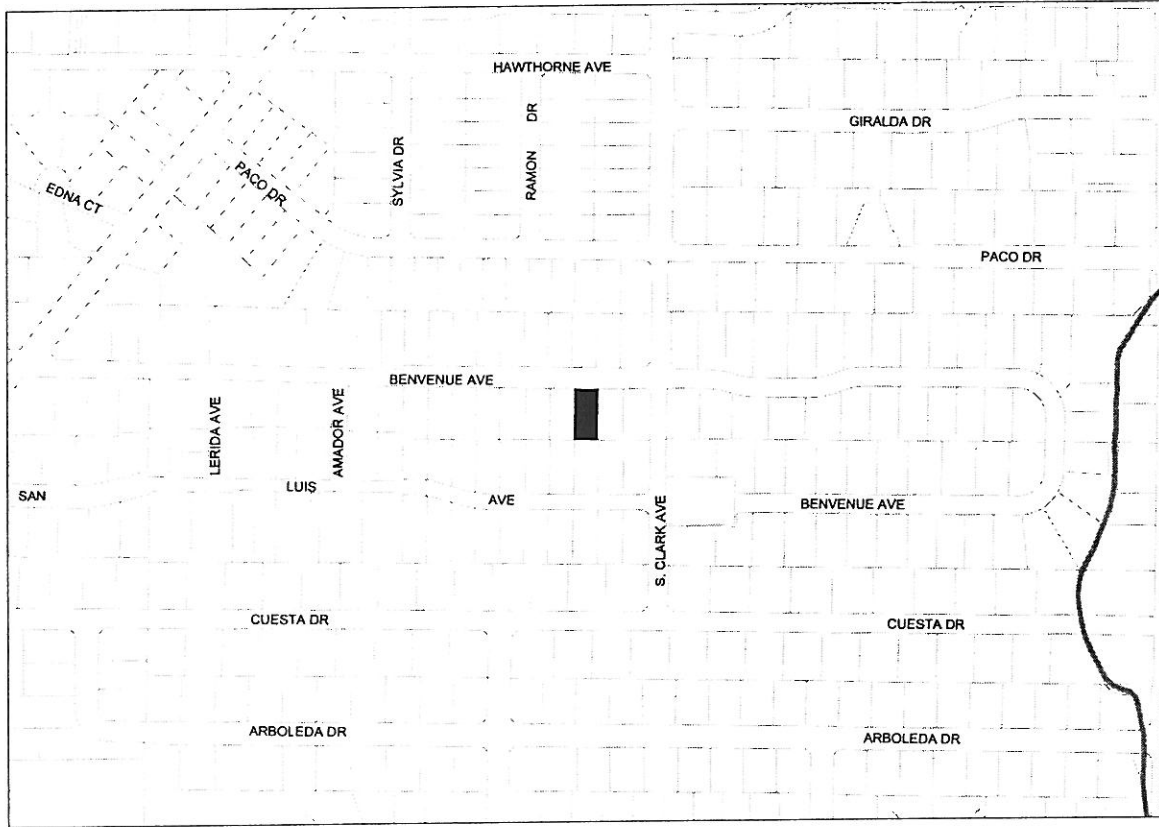
CITY OF LOS ALTOS

APPLICATION: 13-SC-29
APPLICANT: W. and J. Woodford
SITE ADDRESS: 542 Benvenue Avenue

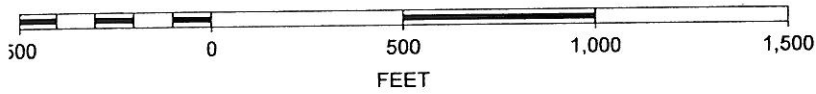


Not to Scale

VICINITY MAP



SCALE 1 : 6,000



CITY OF LOS ALTOS

APPLICATION: 13-SC-29
APPLICANT: W. and J. Woodford
SITE ADDRESS: 542 Benvenue Avenue

Certified Arborist's Tree Inventory & Pre-Construction Report

February 23, 2014
Original Report: March 12, 2013

Prepared for:

Jill Woodford
542 Benvenue Avenue
Los Altos, CA 94024

Site:

New Home
542 Benvenue Avenue
Los Altos, CA 94024

Prepared by:

Ray Morneau

ISA Certified Arborist #WE-0132A
PNWISA Certified Tree Risk Assessor #1188

- Contents**
- 1.0 Assignment & Introduction
 - 2.0 Discussion with leading summary
 - 2.1 Summary.
 - 2.2 Discussion.
 - 3.0 Site Plan, Tree Data, and Data Legend
 - 4.0 Tree Preservation Guidelines: Pre-Construction Maintenance Notes
 - 5.0 Tree Preservation Guidelines: Tree Protection Measures
 - 5.1 Fencing and other root zone protection.
 - 5.2 Prohibited Acts & Admonishments/Requirements
 - 5.3 Construction-time Maintenance
 - 6.0 Certification





1.0 Assignment & Introduction

I have been retained by Jill Woodford as the Project Arborist to provide the pre-construction tree inventory and Arborist's Report for her family's new home project at 542 Benvenue Avenue in Los Altos.

Current drawings have been provided for my reference – including a proposed site plan in February 2013, to which I have added my tree numbers and included in this report.

2.0 Discussion with leading summary

2.1 Summary

Four (4) trees are associated with this property, three (3) on site and one (1) overhanging from the neighbors on the east. The site plan shows this project's new house with attached garage (with a partial basement) in the same location as the existing, but a little larger.

The main tree is the oak - #1 overhanging from the neighbor's. This can be preserved with the implementation of a tree protection plan, as discussed on site February 06, 2013.

Cedar #2 is at the edge of the new driveway footprint. Multiple stresses have taken their toll on this cedar from the compromised root structure at ground level up to the severe line clearance pruning in the foliage crown. Permission to remove this should be granted so a better structured specimen can be planted, which will grow to be an asset for years to come.

Oak tree #3 at the corner of the existing house likely grew from an acorn carried in by a local squirrel, who planted it in the shelter of this house – but placed it unrealistically close for it to reach its potential as a mature local coast live oak. The grading design challenges to build here require that oak #3 be removed.

Walnut #4 is in the back (northwest) corner of this parcel. This walnut is in very poor condition because it has been compromised by severe pruning that has irreparably damaged its structural integrity and ruined its ability to recover and live like a tree instead of a hat rack.

Overall Condition Chart

Percentage Range	Text Description	Quantity
0%	DEAD	0
1% to 25%	Very Poor	1
26% to 49%	Poor	1
50 % to 70%	Fair	1
71% to 90%	Good	1
91% to 100%	Excellent	0

4



3.2 Tree Data (following half page)

3.3 Data Legend (then following two pages)

Tree #	Common Name	dbh (Diameter at Breast Height)	Crown Radius	Height	Crown Class	% Vigor	% Structure	% Overall	Suitability to Preserve	Additional Comments
1	Oak, Coast Live (<i>Quercus agrifolia</i>)	31.0" @ 1'	25'	45'	Dom.	68%	65%	66% Fair	Mod.	Co-dominant trunks at 3-feet. with substantial narrow angle of attachment with embedded bark. But vigorous root flare in parking strip asphalt. Neighbor's tree (property line at 7-feet.). Concrete slab driveway at 9-feet. Edge of street pavement at 14
2	Cedar, Deodar (<i>Cedrus deodara</i>)	26.4"	21'	53'	Co-dom.	53%	44%	47% Poor	Low	Neighbor's asphalt driveway at 4-feet.; 19-feet. to corner of existing house; 19-feet. to edge of street pavement; 6-feet. to sewer cleanout. Substandard communication lines attachment to trunk. Root flare prominent on south side, but defective around 40
3	Oak, Coast Live (<i>Quercus agrifolia</i>)	21.9" @ 3'	22'	50'	Co-dom.	68%	75%	72% Good	Mod.	Two trunks at 4-feet (9", 19"). Crowded, .lop-sided against cedar #2 15-feet. to north. Existing house corner at 5-feet; neighbor's asphalt driveway at 1-foot; 6-feet to gas meter; edge of street pavement at 35-feet.
4	Walnut, Black (<i>Juglans nigra</i>)	40.3" @ 1'	20'	35'	Dom.	25%	25%	25% V. Pr.	Very Low	Back fence at 9-feet south; west side fence at 7-feet. Severely declining with 40% of root flare and lower trunk circumference showing low vigor. Hat-racked (severely pruned) at ~28-feet with decay started at old, poorly located and executed cuts.



3.3 Legend - Tree Inventory Headers

Observations were made and data gathered during my on-site inspection February 11, 2013. Further conclusions and protection measures were refined from office research, seminar information, and past experience based on those observations and data.

Unless otherwise defined as a limited inventory, all site trees larger than a minimum diameter (usually ≥ 4 -inch) were numbered and inspected. The gathered data was entered into a Microsoft® Excel database. The data is encapsulated into the accompanying "Tree Inventory Data" section. The categories are typically self-descriptive with only the following notes.

Tree Number: I sequentially assigned tree numbers from 1 to 4. A 1" by 3" aluminum tag is stapled to each tree at about eye level. I add a prefix "13" to identify each as linked with this inventory, thus differentiating it from any other numbering system.

Names: We employ the initial common names from McMinn, if listed, otherwise from Sunset. Scientific/botanical names are included to minimize confusion. As applicable, we used McMinn's key and/or Sunset's descriptions.

DSH: Diameter at Standard Height: This measurement is the trunk diameter measured at the standard height defined by the jurisdiction in which the tree trunk grows. The industry standard is 54 inches above ground level, taken with a standard surveyor's diameter tape, recorded in inches. Multi-trunked tree's diameters are measured below the lowest branch swelling and/or individual stems at 54 inches, or an average, depending on which height measurement is deemed to produce the best representative figure.

Trunk Circumference: City of Mountain View Planning Department has preferred that I convert the standard diameter measurements to circumference. This column shows my arithmetic results of multiplying the diameters by pi (3.141592).

Crown Radius (CR): The averaged radii's measurement is shown in feet ... $(N+S+E+W) / 4 = CR$.

Canopy Cover: Estimated averaged radii of foliage canopy cover (crown's shadow at noon on the ground below). [This column is omitted when not project-relevant.]

Ht (Height): Estimated distance foliage crown extends above grade, recorded in feet.

Vigor: Rating for tree's growth and vitality as a blend of elements like leaf or bud size and color, twig growth (elongation), accumulation of deadwood, cavities, woundwood development, trunk expansion (growth "cracks"), etc.



Form: Structure rating for tree's architecture as a composite of factors like branch attachment, lean and balance, effects of prior breakage, crossing-tangled-twisted limbs, codominant trunks and/or branches, decay and cavities, anchorage (roots), etc.

Overall Condition: Percentage rating assessing the tree's overall vigor, recent growth, insects/diseases, and structural defects. Relative text rating included in the same cell as: Excellent, Good, Fair, Poor, Very Poor.
 This corresponds to the "Condition Percentage" factor in tree valuations per the Council of Tree and Landscape Appraisers (CTLA) system used by the International Society of Arboriculture. (CTLA, 1992.)
 This combines foliage, branches, limbs, trunk, and root ratings into a composite condition score. This rating is used calculating these trees' appraised values required by some jurisdictions like Palo Alto.

Overall Suitability: Considers the species' tolerance to construction impacts and the tree's condition (vigor & structure), longevity/age, adaptability, and aesthetics.
 This rating takes into account most announced intentions of changes in area/lot use.
 Degrees: High, Moderate, Low, Very Low, In footprint.
 • High: Tree in great condition and any existing defects or stresses are minor or can be easily mitigated.
 • Moderate: Notable vigor and/or stability problems but which can be moderated with treatment &/or increased tree protection zone.
 • Low: Significant problems, including shorter life expectancy. Difficult to retain but potential with much larger tree protection zone.
 • Very Low: Substantial existing problems, defects, stresses. Unlikely to survive impact of any project.
 • In footprint: So close to the proposed construction impacts that it is rated as being within the new footprint.

Age / Longevity: Rates tree's relative age: Young (Long) / Semi-Mature / Mature / Over-Mature (Short).

Comments: Notes most obvious defects, insects, diseases or unique characteristics.

4.0 Tree Preservation Guidelines: Pre-Construction Maintenance notes

- Preserving pre-existing trees on construction sites dooms them to struggle due to hardships imposed by construction needs.
- Trees need space (above and below ground).
- Trees prefer their status quo.
- Buildings need space ... enough said.
- The "dripline", defined as the reach of the extended branches, is often unwisely assumed to be the root zone – the extended reach of most of the roots.
- Tree preservation discussions and/or tree protection measures cannot be all-inclusive but some are offered in many of my reports to assist planning and understanding.



- 4.1 Identify a TPZ (Tree Protection Zone) for each tree to remain after the project closes. A TPZ is defined by the jurisdiction in which the project is located to provide above-ground- and root-zone-protection for trees. In the absence of a specific local definition, the TPZ shall be a circle with a radius of 10-feet for every 1-foot of trunk diameter. Within the TPZ shall be identified a CRZ (Critical Root Zone) – a no man’s land within which no activity may occur without Project Arborist or City Arborist monitoring and/or sign-off. Unless otherwise specified, the CRZ shall be the larger of 3-foot-radius-circle or a circle with a radius of 2-feet for every 1-foot of trunk diameter.
- 4.2 Supplemental watering should be provided for all trees to remain. A rule of thumb for construction site stressed trees is 10-20 gallons per trunk diameter inch per month, particularly critical during hot weather. This is modified by the Project Arborist on site with root zone inspections and monitoring as water demands will obviously be lower during cool, damp weather. Inspection should find soil between 3" and 18" below grade moist enough for roots to thrive.
- 4.3 No pruning is absolutely needed at this time, though pruning to reduce foliage branch endweights could usually make for better-structured trees. Typically, crown raising for clearance over some areas of a site is useful (7-feet over bike lanes, 14-feet for vehicle access, 1- to 3-feet over roofs [species-dependant]). Nevertheless, deadwood removal and endweight reduction is commonly performed to improve existing site and neighboring trees. And, usually project trees benefit from "Crown Cleaning" for deadwood removal and "Crown Thinning" to lighten branch endweights) at sometime before the close of the project. Then the owner has a benchmark against which to compare future status of the trees. All work must conform to published ISA BMPs keyed to ANSI A-300 Standards as the basis for written pruning specifications drafted by an ISA Certified Arborist (or equivalent).
- 4.4 Approaching project commencement, when the foundations, driveways, and other hardscape features (including trenches) have been staked/located, then some pruning may likely be needed. Raising/clearance can be minimized for space to work. Root pruning along the lines within 15-feet on either side of mature trees’ trunks can sever roots cleanly, reducing shock to these trees’ systems.
Root pruning prior to excavating for the foundation and driveway must be done to avoid excessive root damage (rips, tears, shatter, breakage). This is commonly performed with a trencher until 1-inch diameter roots are encountered, at which time the crew continues with exposing larger roots for hand pruning with a sharp saw (hand saw, Sawz-All®, or equivalent). This can be done by careful hand-digging or air/hydraulic excavation to avoid damaging tree roots.
- 4.5 All project tree work performed before, during, or after construction is to be done by WCISA Certified Tree Workers under the supervision of an ISA Certified Arborist (or equivalents, if they possess sufficient skill for approval by Project Arborist). This includes all pruning, removals (including stump removals) within driplines of trees to be preserved, root pruning, and repair or remedial measures.



5.0 Tree Preservation Guidelines: Tree Protection Measures

- 5.1 Fencing and other root zone protection is usually specified as a drip-line installation of 6-foot high chain link fence on galvanized drive posts, plus root zone wood chip mulch. However, due to the inevitable myriad project variables, alternatives are frequently allowed – but require careful strategies arranged with and signed off by the Project Arborist or City Arborist.

For this project, it is highly likely that all site trees must be removed/replaced, so only adjoining-overhanging trees need protecting ... and the property line fences would be the appropriate fencing this time.

Must be in place before demolition or any other project site work.

Though generally expected to extend to the dripline, here the TPF can be installed as close to that as possible.

One 24- to 36-inch opening or gate should be left for inspection access to each area. Fence material is to be 6-foot-high chain link fence supported by 8-foot long, 2-inch diameter galvanized fence posts driven 2-feet into the soil.

Where no plant material root zone buffer is growing (e.g. ivy), a wood chip mulch is to be spread evenly to a 4-inch depth from the dripline to 6-inches from the base of the trunk. Taper to existing ground level at the base of the trunk with a slope of about 2:1.

Additional root zone areas requiring protection can be buffered as Project Arborist requires, e.g., if project scope changes. Commonly acceptable buffer materials often include wood chips, crushed rock, plywood, steel trench plates, and/or a combination of such materials. Consult Project Arborist for depth specifications (which vary depending on use of area and/or specific traffic).

Root zone areas to be protected may be modified by the Municipal Arborist or Project Arborist as plans develop.

5.2 Prohibited Acts & Admonishments/Requirements

- 5.2.1 No parking or vehicle traffic over any root zones, unless using buffers approved by Project Arborist or City Arborist.
- 5.2.2 Monitor root zone moisture and maintain as per above.
- 5.2.3 Have an ISA Certified Arborist repair any damage promptly.
- 5.2.4 No pouring or storage of fuel, oil, chemicals, or hazardous materials under any trees' foliage canopies or future plant materials' root zone areas.
- 5.2.5 No grade changes (cuts, fills, etc.) under these foliage crowns without prior Project Arborist approval. For instance, hand excavation and thinner base prep may be required in some root zone areas.
- 5.2.6 Any additional pruning required must be performed under arborist supervision – including root pruning – clean, smooth cuts with no breaking, scraping, shattering, or tearing of wood tissue and/or bark.
- 5.2.7 No storage of construction materials under any foliage canopy without prior Project Arborist or City Arborist approval.
- 5.2.8 No trenching within the critical root zone area. Consult Project Arborist before any trenching or root cutting beneath any tree's foliage canopy. It is best to route all



trenching out from under trees' driplines. Often trenches in root zones must be hand excavated to leave roots intact.

5.2.9 No clean out of trucks, tools, or other equipment over any essential root zone. Keep this debris outside of any existing or future root zone.

5.2.10 No attachment of signs or other construction apparatus to these trees.

5.3 Construction-time Maintenance

5.3.1 Monitor root zone moisture and maintain as per above (§4.1).

5.3.2 Maintain/repair tree protection fences and/or root zone mulch/buffer material.

5.3.3 Have a certified arborist promptly repair any damage to trees.

5.3.4 Develop the plan for follow-up care so, as the project closes, the care of the trees can be handed over for continuing management by the owner and/or landscape contractor.

5.4 Post-Construction Follow-Up

5.4.1 Monitor root zone moisture, especially during/following drought//dry seasons. [A dry season is any time more than 60 days elapse since significant rainfall (2-inches or less).]

5.4.2 Monitor root zone mulch (if used), maintain depth, and scarify (approximately once or twice annually) to break up compaction/matting.

5.4.3 Monitor for insect pests and diseases, especially insects with sucking/chewing mouthparts or boring insects (bark beetles)..

5.4.4 Inspect for structural safety before storm season and after severe weather events.

5.4.5 Follow California Oak Foundation guidelines as to not irrigating and/or planting water loving plant material within 10-feet of the trunks of mature trees.

6.0 Certification

I certify that all the statements of fact in this report are true, complete, and correct to the best of my knowledge, ability, and belief, and are made in good faith.

Thank you for the opportunity to apply my knowledge and expertise working with your trees. Good luck with the construction project and tree care decisions ahead of you. If I can answer any further questions for you, the City staff, tree care contractors, or anyone with concerns about your trees, please call or e-mail to inform me.

Respectfully submitted,

Raymond J. Morneau

ISA Certified Arborist #WE-0132A

PNW-ISA Certified Tree Risk Assessor #1188

February 23, 2014

Certified Arborist's Pre-Constr. Rpt: 542 Benvenue, Los Altos.

Page #9 of 9.