



DATE: March 5, 2013

AGENDA ITEM # 5

TO: Design Review Commission
FROM: Sean K. Gallegos, Assistant Planner
SUBJECT: 13-SC-33 – 1650 Morton Avenue

RECOMMENDATION:

Approve design review application 13-SC-33 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 accessory structure and construct a new house with 2,289 square feet on the first story and 1,261 square feet on the second story. The following table summarizes the project:

GENERAL PLAN DESIGNATION: Single-family, Residential
ZONING: R1-10
PARCEL SIZE: 10,171 square feet
MATERIALS: Hardieplank siding, natural stone veneer, wood windows with vinyl cladding, and asphalt shingle roof

	Existing	Proposed	Allowed/Required
LOT COVERAGE:	3,151 square feet	2,791 square feet	3,051 square feet
FLOOR AREA:			
First floor	3,007 square feet	2,289 square feet	
Second floor		1,261 square feet	
Total	3,007 square feet	3,550 square feet	3,560 square feet
SETBACKS:			
Front (Farndon)	24 feet	25 feet	25 feet
Rear	28 feet	34 feet	25 feet
Exterior side	21 feet	18 feet/25 feet	16.4 feet
Left side	15 feet	15 feet/27 feet	10 feet/17.5 feet
HEIGHT:	15	23 feet	27 feet

BACKGROUND

The subject property is located in a Consistent Character Neighborhood as defined in the City's Residential Design Guidelines. The homes in the neighborhood are a mix of newer and older one- and two-story Ranch style, single-family homes, with low wall plate heights and simple roof forms (low-pitched gable and hipped roofs), rustic materials, with wood siding dominant. While the vegetation along the street is not uniform, there are many large trees along both streets and on the subject property.

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.

The design is similar to homes in the area with its use of hip and gable roof forms, recessed porch, low-pitched roof and articulated massing. The detailing and material of the structure reflects a high level of quality and appropriate relationship to the rustic qualities of the area. The project does a good job of integrating hip roof and recessed entry porch elements from the neighborhood while still establishing its own design integrity. The proposed building materials include hardieplank siding, natural stone veneer, wood windows with vinyl cladding, and 40-year asphalt shingle are high quality and compatible with the character of the neighborhood. Overall, the design is well integrated reflects the character of the area.

The project is in keeping with the scale of other homes found in the neighborhood. The project has low eave lines, which is appropriate and in keeping with the lower profile of the adjacent homes. The stone wainscot also contributes to the more horizontal appearance of the structure. The proposed 23-foot tall home is four feet shorter than the maximum permitted height in a neighborhood with mostly 17- to 20-foot tall single-story homes. The project reduces the perception of bulk by proposing low wall plate heights on the first and second story, and a low-pitch hip roof with gable elements and horizontal siding. The second story is centered over the first story to minimize the perception of bulk. 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.

Privacy and Landscaping

The Residential Design Guidelines recommend that the finished floor be no more than 16 to 22 inches above grade. The lot is relatively flat and the house is designed with a foundation that results in a finished floor height of nine inches above existing grade and three inches below the finished floor height of the existing structure. With this low finish floor height and six-foot tall fences between adjoining properties, the proposed first floor side and rear elevations do not create significant privacy issues.

On the left (south) side elevation of the second story, there are five windows: two windows are located in the master bathroom with a five-foot sill height, one window is located in bathroom No. 2 with a five-foot, six-inch, sill height, and two windows are located in a bedroom No. 3 with a five-

foot sill height. The project also includes a balcony on the side elevation off a hallway. This balcony, which is 10 feet wide and 10 feet deep, primarily faces the side yard, but has some exposure to the rear property lines. To provide privacy screening along the left property line, the balcony design incorporates a six-foot, six-inch tall trellis and the second story windows have high sill heights. To ensure that there are no additional privacy impacts, a faster growing evergreen screening will be planted along the left side and rear property lines (Condition No. 3).

The rear (west) second story elevation includes two windows in the master bathroom with six-foot sill heights. The project also includes a balcony on the rear elevation off the master bedroom. This balcony is 13 feet, six inches, wide and 5 feet deep, primarily faces the rear yard, but has some exposure to the side property lines. In order to diminish unreasonable privacy impacts, the balcony design incorporated a six-foot tall trellis structure and the second story windows have high window sill heights. The applicant has also worked with staff to incorporate fast growing evergreen screening along the 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 eight trees on the property including seven trees in the public right-of-way (adjacent to the front and exterior side property line). The project proposes removal of one 40-inch redwood tree in the interior side yard due to the location of the proposed structure. This is appropriate given the remaining trees and location between the proposed structures and neighboring properties. Tree protection guidelines will be followed to maintain the seven remaining trees during construction.

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: Galina Novick, Applicant and Designer
Michael Ferris, Owner

Attachments:

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

FINDINGS

13-SC-33—1650 Morton Avenue

1. 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

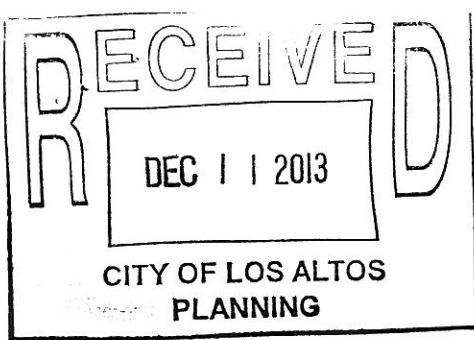
13-SC-33—1650 Morton Avenue

1. The approval is based on the plans received on February 18, 2014 and the written application materials provided by the applicant, except as may be modified by these conditions.
2. The 32-inch coast redwood tree, two 27-inch soap bark trees, 21-inch soap bark tree, 32-inch soap bark tree, 21-inch holly oak, 32-inch holly oak, and 24-inch holly oak tree 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 landscape screenings or trees along the west and south property lines. The plants shall be a minimum of 15-gallon 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 (32-inch coast redwood tree, two 27-inch soap bark trees, 21-inch soap bark tree, 32-inch soap bark tree, 21-inch holly oak, 32-inch holly oak, and 24-inch holly oak tree) as shown on the site 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. 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.
 - c. 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.
 - d. Fire sprinklers to be installed pursuant to Section 12.10 of the Municipal Code.
 - e. 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.
 - f. The location of any air conditioning units on the site plan and the manufacturer's sound rating for each unit.

- g. The location of any water backflow preventers and screening to mitigate such facilities.
- h. 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, exterior side yard, interior side, and rear 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

Bay Architect @ Verizon.net

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

Permit # _____

<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"/>	RI-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: 1650 MORTON AVE.

Project Proposal/Use: RESIDENCE

Current Use of Property: RESIDENCE

Assessor Parcel Number(s) 318-18-01A Site Area: 10,250 sq. ft.

New Sq. Ft.: 3568 Remodeled Sq. Ft.: 0 Existing Sq. Ft. to Remain: 0

Total Existing Sq. Ft.: 3010 Total Proposed Sq. Ft. (including basement): 5284

Applicant's Name: SUMMERS & NOVICK

Home Telephone #: N/A Business Telephone #: 408.395.3877

Mailing Address: 430 MONTEREY AVE. 5A

City/State/Zip Code: LOS GATOS CA 95030

Property Owner's Name: MICHAEL FERRIS

Home Telephone #: 408 732 3066 Business Telephone #: N/A

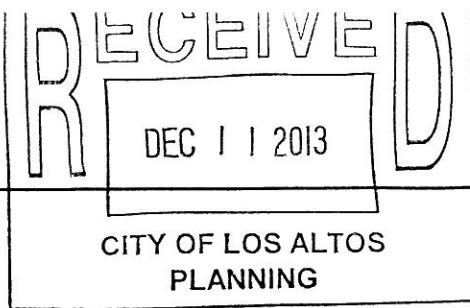
Mailing Address: 1726 WRIGHT AVE.

City/State/Zip Code: SUNNYVALE, CA 94087

Architect/Designer's Name: SUMMERS & NOVICK
CATALINA NOVICK Telephone #: 408.395.3877

*** 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)



ATTACHMENT B

Planning Division

(650) 947-2750

Planning@losaltosca.gov

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 1650 MARTIN AVE.
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: 1690 MORTON AVE.
Date: LOS ANGELES
12.01.13

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: 10,000^{sq} square feet
Lot dimensions: Length 125 feet
Width 80 feet

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

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

Existing front setback if home is a remodel? _____

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 ALL

Garage facing front recessed from front of house face NONE

Garage in back yard NONE

Garage facing the side NONE

Number of 1-car garages 0; 2-car garages ALL; 3-car garages 0

Address: 1657 MORTON AVE.

Date: 12.01.17

4. Single or Two-Story Homes:

What % of the homes in your neighborhood* are:

One-story 75%

Two-story 25%

5. Roof heights and shapes:

Is the overall height of house ridgelines generally the same in your neighborhood*? MIXED

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 ____?

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

What siding materials are frequently used in your neighborhood*?

MIXED
__ wood shingle __ stucco __ board & batten __ clapboard
__ tile __ stone __ brick combination of one or more materials
(if so, describe) _____

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

MIXED.

If no consistency then explain: OLDER (50's) RANCH STYLE HOMES,
REMODELED W/ NEW ROOFS.

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: 1652 MORTON AVE.
Date: 12-01-13

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)
SLIGHTLY UP TOWARD INT. ADJ. PROPERTY.

Is your slope ^{ELEVATION AT FINISH GRADE} 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?
Not NOTICEABLE.

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.)?
LAWNS, TREES, SHRUBS.

How visible are your house and other houses from the street or back neighbor's property?
EASILY VISIBLE, WITH SURROUNDING TREES.

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)?
ASPHALT ROAD.

10. Width of Street:

What is the width of the roadway paving on your street in feet? 40'
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?

Address: 1650 MORRISON AVE.

Date: 12.21.12

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.:

OLDER RANCH-STYLE HOMES, CONSTRUCTED AS A DEVELOPMENT, W/ SIMILAR SETBACKS, BUT MODIFIED IN THE LAST FEW DECADES W/ VARIOUS MATERIALS & 2ND-FLOOR ADDITIONS -

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: 1650 MORTON AVE.
 Date: 12.01.13

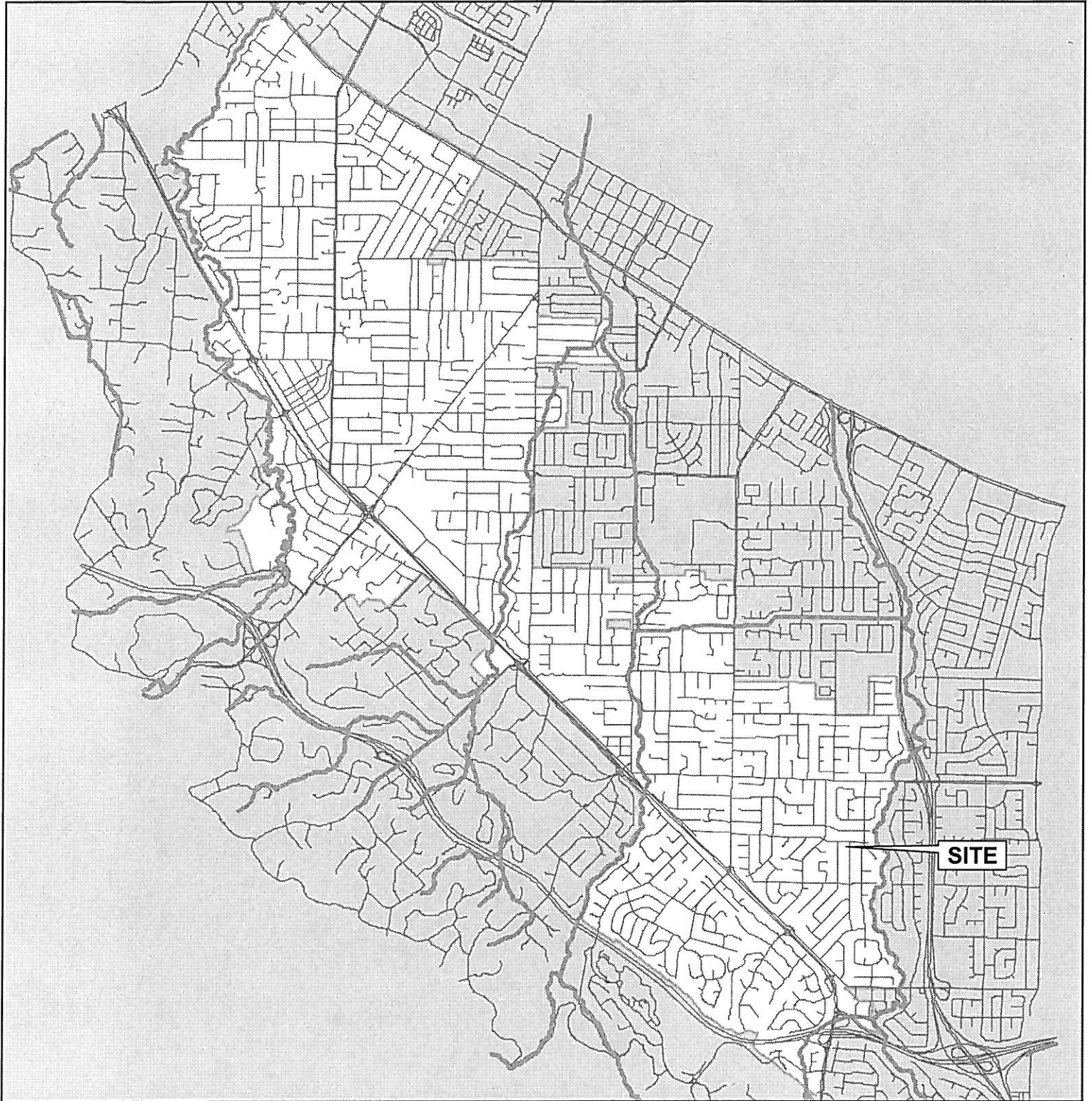
Summary Table

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 (ft.)	Materials	Architecture (simple or complex)
001: 1650 MORTON AVE.	25'		FRONT	ONE	8'	STUCCO, SIDING	COMPLEX
006: 1629 MORTON AVE	25'		"	"	8'	STUCCO, BRICK	SIMPLE
007: 1635 MORTON AVE.	25'		"	"	8'	HOR. SIDING, BRICK	"
008: 1647 MORTON AVE.	25'		"	"	8'	STUCCO, BRICK	"
009: 1659 MORTON AVE.	25'		"	"	8'	STUCCO, BRICK	"
003: 1809 FARNHAM AVE.	25'		"	"	8'	VERT. SIDING	"
009: 1817 FARNHAM AVE.	25'		"	TWO	16'	VERT. SIDING	"
010: 1804 ALFORD AVE	25'		"	ONE	8'	UNKNOWN	"
012: 1808 ALFORD AVE	25'		"	TWO	16'	STUCCO	COMPLEX
013: 1810 ALFORD AVE	25'		"	TWO	16'	MIXED SIDING	COMPLEX

AREA MAP

ATTACHMENT C



CITY OF LOS ALTOS

APPLICATION: 13-SC-33
APPLICANT: Summers and Novick/M. Ferris
SITE ADDRESS: 1650 Morton Avenue

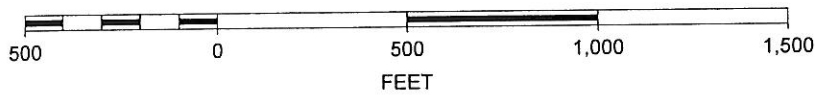


Not to Scale

VICINITY MAP



SCALE 1 : 6,000



CITY OF LOS ALTOS

APPLICATION: 13-SC-33
APPLICANT: Summers and Novick/M. Ferris
SITE ADDRESS: 1650 Morton Avenue

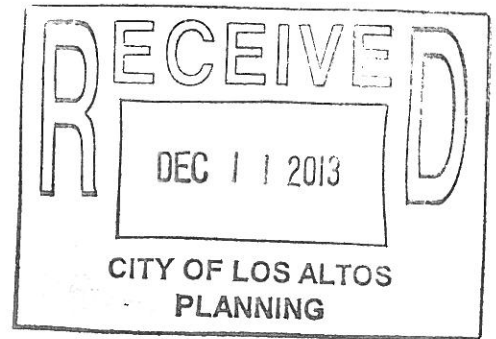
ATTACHMENT D

**Tree Protection Plan
and
Arborist's Assessment**

**1650 Morton Avenue
Los Altos, CA 94024**

Prepared for:

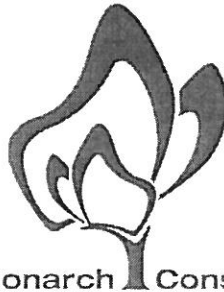
**Michael Ferris
and
Summers and Novick**



November 22, 2013

Prepared By:

Richard Gessner
Registered Consulting Arborist® #496
Board Certified Master Arborist® WE-4341B
Tree Risk Assessor Qualified



Monarch Consulting Arborists LLC
P.O. Box 1010
Felton, CA 95019
831. 331. 8982

Table of Contents

Summary	1
Introduction	1
<i>Background</i>	<i>1</i>
<i>Assignment.....</i>	<i>1</i>
<i>Limits of the assignment.....</i>	<i>1</i>
<i>Purpose and use of the report</i>	<i>1</i>
Observations	2
Analysis	3
Discussion	3
<i>Tree Inventory.....</i>	<i>3</i>
<i>Condition Rating.....</i>	<i>4</i>
<i>Suitability for Preservation.....</i>	<i>4</i>
<i>Tree Protection</i>	<i>6</i>
<i>Critical Root Zone</i>	<i>7</i>
Conclusion.....	9
Recommendations	9
Bibliography.....	10
Glossary of Terms	11
Appendix A: Protection Map.....	13
Appendix B: Tree Table	14
Appendix C: Photographs	15
<i>C1: Road frontage</i>	<i>15</i>



C2: Coast redwood with codominant tops 16

C3: Coast redwoods along the south side 17

C4: Interior 18

Appendix D: Tree protection specifications 19

Pre-Construction Meeting with the Project Arborist..... 19

Tree Protection Zones and Fencing 19

Monitoring..... 19

Restrictions Within the Tree Protection Zone 19

Root Pruning 20

Boring or Tunneling 20

Timing..... 20

Tree Pruning and Removal Operations..... 20

Tree Protection Signs 20

Appendix E: Tree Protection Signs 21

E1: English..... 21

E2: Spanish..... 22

Qualifications, Assumptions, and Limiting Conditions 23

Certification of Performance 24



Summary

The property located at 1650 Morton Avenue contains eight trees protected by the City of Los Altos ordinance. There are two coast redwoods (*Sequoia sempervirens*), three holly oaks (*Quercus ilex*), and three soap bark (*Quillaja saponaria*) trees that will be moderately influenced by the project. Tree protection will need to be established to help reduce unnecessary damage to the trees. No trees will need to be removed and all are in either good or fair condition with either good or fair suitability for preservation.

Introduction

Background

I was contracted by Michael Farris to provide a tree protection plan for the trees on 1650 Morton Avenue. The property contains eight trees protected by the City of Los Altos under ordinance 11.08.040 (A). The city ordinance protects trees greater than 48 inches in circumference at 48 inches above grade (11.08.040 (A)).

Assignment

- Provide an arborist's report that includes an assessment of the two redwood trees, three holly oaks, and three soap bark trees. The assessment is to include the species, size (trunk diameter/circumference), condition (health and structure), and suitability for preservation.
- Provide tree protection specifications and influence ratings for the trees that will be affected by the project.

Limits of the assignment

- No tree **risk assessments** were performed.
- The information in this report is limited to the condition of the trees during my inspection on November 16, 2013.
- The plans assessed for this project were the Site Plan A-0 provide by Summers and Novick and the Topographic and Boundary Survey provided by DMG Engineering, Inc. dated August 23, 2013.

Purpose and use of the report

The report is intended to document the characteristics of the trees near the proposed development and make recommendations for preservation. The report is to be used by the property owners, their agents, and the City of Los Altos as a reference for protecting the trees during construction.



Observations

The property is located at the corner of Morton Avenue and Farndon Avenue (Image 1). There is a single story residence with three holly oaks and three soap bark growing around the outer perimeter along the road front. Two coast redwoods are growing against the south boundary near the neighbor fence and one tree may have shared ownership.

All the oaks and soap bark have a multi-stem form with normal foliar color, size and density, and are approximately 35 feet tall.

The eastern most coast redwood has a single stem while the western most tree has **codominant stems** originating approximately 20 feet above grade. Foliar color, size, and density are normal for both coast redwood trees. The trees are growing along the southern property boundary and at least one tree may be co-owned as its trunk flare straddles the fence line, and the fence needed to be configured to accommodate the growth.

The new home is to be constructed in the footprint of the old structure.



Image 1: Aerial overview of the property with the "A" situated over the two coast redwoods



Analysis

No technical analysis or testing were performed for this assignment.

Discussion

Tree Inventory

There are eight trees on the property protected by the city's ordinance and their size is listed by trunk diameter and not circumference.

The tree inventory consisted of trees within the property boundary that are greater than 48 inches in circumference at 48 inches above grade. The City of Los Altos protects any tree greater than 48 inches in circumference which is equal to 15 inches in diameter.

Trunk diameters are taken from the site survey provided by DMG Engineering, Inc. dated August 23, 2013.

The table below lists the trees and their characteristics (Table 1).

Tree	Diameter at 48 Inches Above Grade	Height	Crown Radius	Notes
Coast redwood (<i>Sequoia sempervirens</i>)	40 inches	65 feet	~20	south side back yard
Coast redwood (<i>Sequoia sempervirens</i>)	32 inches	65 feet	~20	south side back yard
Soap bark (<i>Quillaja saponaria</i>)	27 inches	35 feet	~25	East side along Farndon Avenue
Soap bark (<i>Quillaja saponaria</i>)	27 inches	35 feet	~25	East side along Farndon Avenue
Holly oak (<i>Quercus ilex</i>)	21 inches	35 feet	~25	East side along Farndon Avenue
Holly oak (<i>Quercus ilex</i>)	30 inches	35 feet	~25	North side along Morton Avenue
Soap bark (<i>Quillaja saponaria</i>)	32 inches	35 feet	~25	North side along Morton Avenue
Holly oak (<i>Quercus ilex</i>)	24 inches	35 feet	~25	North side along Morton Avenue

Table 1: Tree Inventory (Trees listed in counter clockwise fashion starting with the largest coast redwood on the south side).



Condition Rating

All the trees are in fair condition with minor structural defects or conditions that can be mitigated through cultural practices except for the eastern coast redwood, which is in good condition.

A tree's condition is a determination of its overall health and structure based on five aspects: Roots, trunk, **scaffold branches**, twigs, and foliage. The assessment considered both the health and structure of the trees for a combined condition rating. The crown, trunk, **trunk flare**, and above ground roots were inspected from the ground.

- Exceptional = Good health and structure with significant size, location or quality.
- Good = No apparent problems, good structure and health, good longevity for the site.
- Fair = Minor problems, at least one structural defect or health concern, problems can be mitigated through cultural practices such as pruning or a plant health care program.
- Poor = Major problems with multiple structural defects or declining health, not a good candidate for retention.
- Dead/Unstable = Extreme problems, irreversible decline, failing structure, or dead.

Suitability for Preservation

All the trees have good suitability for preservation except for the western most redwood with codominant stems which has fair suitability.

A tree's suitability for preservation is determined based on its health, structure, age, species characteristics, and longevity using a scale of good, fair, or poor. The following list defines the rating scale:

- Good = Trees with good health, structural stability and longevity.
- Fair = Trees with moderate health or structural defects that can be mitigated through treatment.
- Poor = Trees in poor health with significant structural defects that cannot be mitigated and will continue to decline, or longevity and locations are undesirable for the future site use.

Because the condition rating takes into account both structural components and health problems some trees may rate to be in fair overall condition but potentially not suitable for retention. For example, a tree could be structurally sound but declining in health, structurally compromised, **suppressed**, or have other conditions or defects and retention may not be advisable.



Influence Level

All the trees will be moderately affected by the proposed development. Each tree will likely be influenced on at least one side of its root zone depending on construction techniques, future landscaping, and new driveway construction (Photos 1 and 2).

Influence level defines how a tree may be influenced by construction activity and proximity to the tree, and is described as low, moderate, or high. The following scale defines the impact rating:

- Low = The construction activity will have little effect on the tree health or structure.
- Moderate = The construction may cause future health or structural problems, and steps must be taken to protect the tree to reduce future problems.
- High = Tree structure and health will be compromised and removal is recommended, or other actions must be taken for the tree to remain. The tree is located in the building envelope.



Photo 1: Coast redwoods near the footprint of the house on the south side



Photo 2: Holly oak near the footprint of the house on the south side



Tree Protection

The trees should be fenced at the **critical root zone (CRZ)** distance as the **tree protection zone (TPZ)** inside the lot. This will help exclude personnel and equipment from using the space under the oak trees in the front of the property. The protection distance will be inside the **drip line**.

Tree protection focuses on protecting trees from damage to the roots, trunk, or scaffold branches from heavy equipment (Appendix D). Two zones of protection need to be determined to protect the tree's health and structure, the tree protection zone and the critical root zone (Figure 1).

The tree protection zone (TPZ) is the defined area in which certain activities are prohibited to minimize potential injury to the tree. The TPZ can be determined by a formula based on species tolerance, tree age, and diameter at breast height (DBH) (Matheny, N. and Clark, J. 1998) or as the drip line in some instances.

Preventing **mechanical damage** to the main stems from equipment or hand tools can be accomplished by wrapping the main stem with **straw wattle** (Figure 2). The wattle will create a porous barrier around the trunk and prevent damage to the bark and vascular tissues underneath.

Trees that are moderately influenced by the project should be wrapped with wattle.

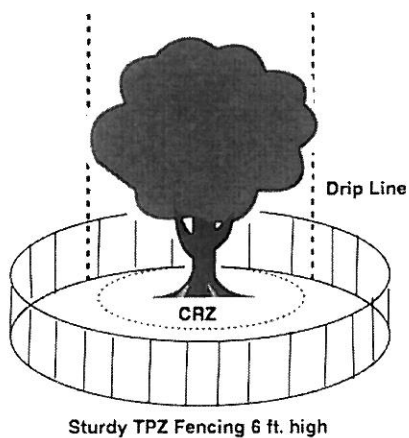


Figure 1: The image above depicts the drip line, CRZ and TPZ.

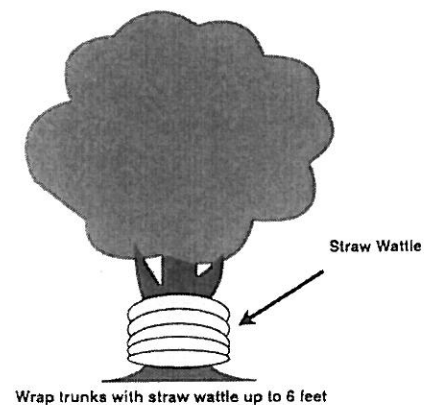


Figure 2: The image above depicts wrapping the trunk with straw wattle.

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Critical Root Zone

Because the trees will only be influenced on one side the CRZ will in effect be the TPZ for this project. The CRZ distances are listed in "Appendix B".

The critical root zone (CRZ) is the area of soil around the trunk of a tree where roots are located that provide stability and uptake of water and nutrients required for the tree's survival. The CRZ is the minimum distance from the trunk that trenching or root cutting can occur and will be defined by the trunk diameter as a distance of three times the DBH in feet, and preferably, five times (Smiley, E.T., Fraedrich, B. and Hendrickson, N. 2007). For example if the tree is two feet in diameter, the minimum CRZ distance would be six to ten feet from the stem on one side of the tree.

The recommended maximum encroachment distance into the root zone of oaks on one side is five times the trunk diameter (Coate, B.)(Costello, L., Hagan, B., Jones, K. 2011) (Figure 3).

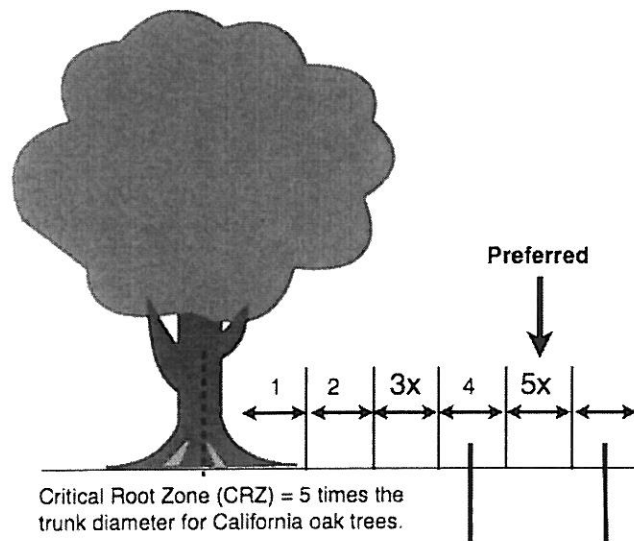


Figure 3: The image above depicts the preferred Critical Root Zone distance for oaks.

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Bridging with Mulch

It will be necessary to bridge near the coast redwood trees when the new home is constructed. Because tree protection fencing would not allow for the actual construction off the new building a platform will be required to help protect the roots from compaction in this area.

Because the moderately influenced trees are close to the proposed construction the CRZ and the TPZ may be the same distance in these instances. It may be impractical to fence off the TPZ near the construction because there will be limited room to work in the vicinity of the trees.

Placing **mulch** and plywood or steel road plates over the CRZ/TPZ or building a low scaffold will create a work platform that can be used to help protect the roots from compaction (Figure 4).

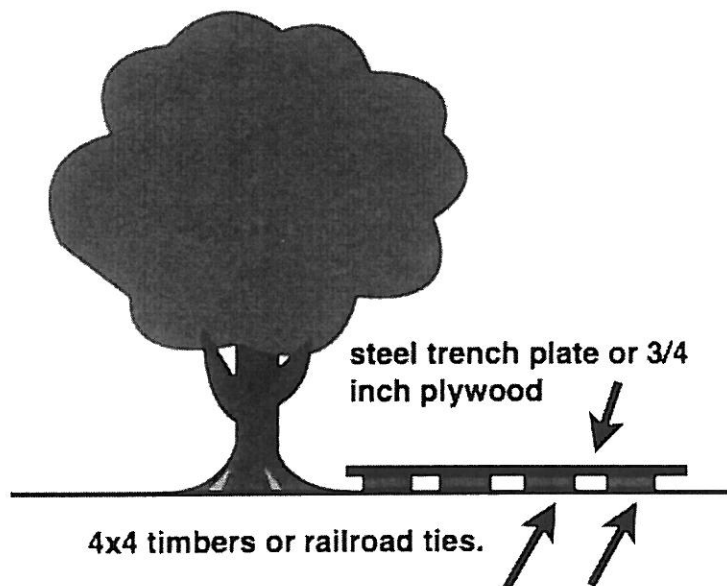


Figure 4: The image above depicts bridging for a work platform under the trees.



Conclusion

The property located at the corner of Morton Avenue and Farndon Avenue contains eight trees protected by the City of Los Altos ordinance. There are two coast redwoods, three holly oaks, and three soap bark that will be moderately influenced by the project. All the trees are in fair condition except one coast redwood is in good condition with no significant defects or conditions. All the trees have good suitability for preservation except one coast redwood with codominant stems has fair suitability with a significant defect that can be mitigated. Tree protection will need to be established at the critical root zone distance of five times the trunk diameter of the trees, and it will be necessary to bridge over the root zones near the coast redwoods for the new construction. The holly oaks and soap bark can be fenced off in the interior yard by placing fencing at the critical root zone distance, and if necessary at the street on the exterior of the property.

Recommendations

1. Wrap the tree trunks with straw wattle to help prevent mechanical damage.
2. Raise crowns as necessary to accommodate construction activity using a qualified arborist with a C-61/D-49 California Contractors License. Tree pruning should be according to ANSI A-300A pruning standards and adhere to ANSI Z133.1 safety standards.
3. Place tree protection fencing 13 feet from the main stems of the oaks and soap bark in the interior of the property. Allow for ingress and egress into the property at the existing openings on Morton Avenue and Farndon Avenue.
4. When demolishing the existing structure pull debris away from the redwoods and use the existing entrances to the property.
5. Use mulch or timbers and steel road plate or 3/4 inch plywood to bridge over the root zones of the redwood trees during the new home construction to help reduce compaction.
6. Follow the general guidelines provided in Appendix D.



Bibliography

Clark, James R., and Nelda P. Matheny. *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas*. Bedminster, PA: International Society Of Arboriculture, 1994. Print.

Costello, Laurence Raleigh, Bruce W. Hagen, and Katherine S. Jones. *Oaks in the urban landscape: selection, care, and preservation*. Oakland, CA: University of California, Agriculture and Natural Resources, 2011. Print.

ISA. *Glossary of Arboricultural Terms*. Champaign: International Society of Arboriculture, 2011. Print.

Matheny, Nelda P. *Trees and development: A technical guide to preservation of trees during land development*. Bedminster, PA: International Society of Arboriculture, 1998. Print.

Smiley, E. Thomas, Fraedrich, Bruce R., and Hendrickson, Neil. *Tree Risk Management*. 2nd ed. Charlotte, NC: Bartlett Tree Research Laboratories, 2007



Glossary of Terms

Codominant stem: Forked branches nearly the same size in diameter, arising from a common junction and lacking a normal branch union.

Critical root zone (CRZ): Area of soil around a tree where the majority of roots are located and that provide stability as well as uptake water and minerals. CRZ determination is sometimes based on the drip line or multiple of DBH, but because root growth is often asymmetric due to site conditions, on-site investigation is preferred.

Crown: Upper part of a tree, measured from the lowest branch, including all the branches and foliage.

Defect: An imperfection, weakness, or lack of something necessary. In trees defects are injuries, growth patterns, decay, or other conditions that reduce the tree's structural strength.

Diameter at breast height (DBH): Measures at 1.4 meters (4.5 feet) above ground in the United States, Australia (arboriculture), New Zealand, and when using the *Guide for Plant Appraisal*, 9th edition; at 1.3 meters (4.3 feet) above ground in Australia (forestry), Canada, the European Union, and in UK forestry; and at 1.5 meters (5 feet) above ground in UK arboriculture.

Drip Line: Imaginary line defined by the branch spread or a single plant or group of plants.

Included bark: Bark that becomes embedded in a crotch (union) between branch and trunk or between codominant stems. Cause a weak structure.

Mechanical damage: Physical damage caused by outside forces such as cutting, chopping or any mechanized device that may strike the tree trunk, roots or branches.

Mulch: Material that is spread or sometimes sprayed on the soil surface to reduce weed growth, To retain soil moisture and moderate temperature extremes, to reduce compaction from pedestrian or vehicle traffic or to prevent damage from lawn maintenance equipment, to reduce erosion or soil splattering onto adjacent surfaces, to improve soil quality through its eventual decomposition, and/or to improve aesthetic appearance of the landscape. Mulch can be composed of chipped, ground, or shredded organic material such as bark, wood, or recycled paper; unmodified organic material such as seed hulls; organic fiber blankets or mats; or inorganic material such as plastic sheeting.

Scaffold branches: Permanent or structural branches that for the scaffold architecture or structure of a tree.



Straw wattle: also known as straw worms, bio-logs, straw noodles, or straw tubes are man made cylinders of compressed, weed free straw (wheat or rice), 8 to 12 inches in diameter and 20 to 25 feet long. They are encased in jute, nylon, or other photo degradable materials, and have an average weight of 35 pounds.

Suppressed: Growth severely restricted by competing trees. Stand classification term.

Topping: Inappropriate pruning technique to reduce tree size. Cutting back a tree to a predetermined crown limit, often at internodes.

Tree Protection Zone (TPZ): Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction or development.

Tree Risk Assessment: Process of evaluating what unexpected things could happen, how likely it is, and what the likely outcomes are. In tree management, the systematic process to determine the level of risk posed by a tree, tree part, or group of trees.

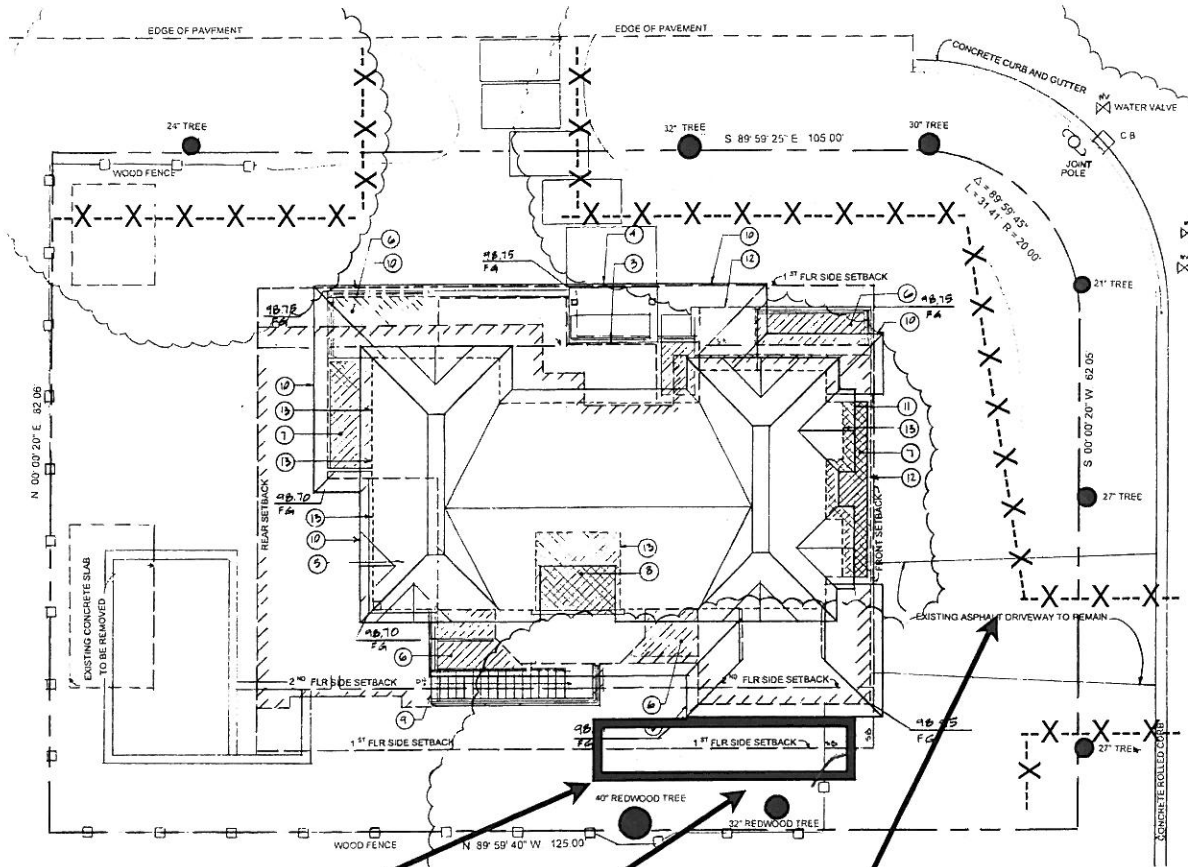
Trunk: The stem of a tree, bole or stem. Woody structure bearing foliage and buds that give rise to other branches or stems.

Trunk flare: Transition zone from trunk to roots where the trunk expands into the buttress or structural roots.

This Glossary of terms was adapted from the *Glossary of Arboricultural Terms* (ISA, 2011)



Appendix A: Protection Map



Bridge with mulch or timbers and plywood or road plate near the coast redwoods.

Place tree protection fencing 13 feet from the trunks or at edge of pavement.

Map is not to scale. Base map provide by Summers and Novick, Architecture.



Appendix B: Tree Table

Tree	Diameter at 48 Inches Above Grade	Height	Crown Radius	Condition	Suitability	Influence	Critical Root Zone/ Tree Protection zone
Coast redwood (<i>Sequoia sempervirens</i>)	40 inches	65 feet	~20	Fair	Fair	Moderate	16 feet
Coast redwood (<i>Sequoia sempervirens</i>)	32 inches	65 feet	~20	Good	Good	Moderate	13 feet
(<i>Quillaja saponaria</i>) <i>rcus ilex</i>)	27 inches	35 feet	~25	Fair	Good	Moderate	11 feet
(<i>Quillaja saponaria</i>) <i>rcus ilex</i>)	27 inches	35 feet	~25	Fair	Good	Moderate	11 feet
Holly oak (<i>Quercus ilex</i>)	21 inches	35 feet	~25	Fair	Good	Moderate	9 feet
Holly oak (<i>Quercus ilex</i>)	30 inches	35 feet	~25	Fair	Good	Moderate	13 feet
Soap bark (<i>Quillaja saponaria</i>)	32 inches	35 feet	~25	Fair	Good	Moderate	13 feet
Holly oak (<i>Quercus ilex</i>)	24 inches	35 feet	~25	Fair	Good	Moderate	13 feet

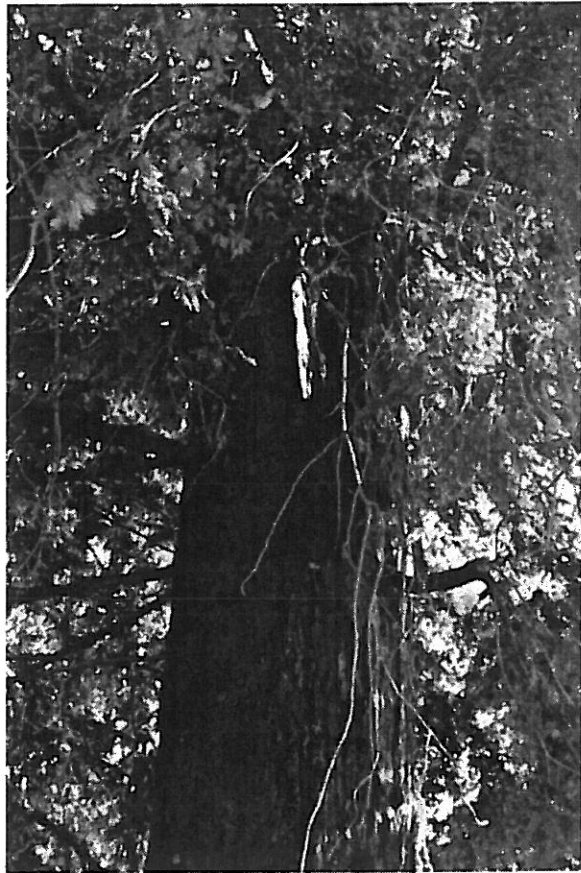


Appendix C: Photographs

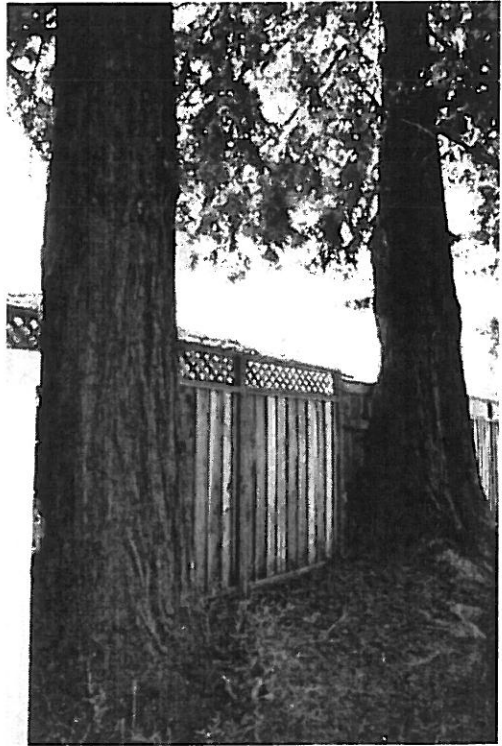
C1: Road frontage



C2: Coast redwood with codominant tops



C3: Coast redwoods along the south side



C4: Interior



Appendix D: Tree protection specifications

Tree protection locations should be marked before any fencing contractor arrives.

Pre-Construction Meeting with the Project Arborist

Prior to beginning work, all contractors involved with the project should attend a pre construction meeting with the project arborist to review the tree protection guidelines. Access routes, storage areas, and work procedures will be discussed.

Tree Protection Zones and Fencing

Tree protection fencing should be established prior to the arrival of construction equipment or materials on site. Fencing should be comprised of six-foot high chain link fencing mounted on eight-foot tall, 1 7/8-inch diameter galvanized posts, driven 24 inches into the ground and spaced no more than 10 feet apart. Once established, the fencing must remain undisturbed and be maintained throughout the construction process until final inspection.

The fencing should be maintained throughout the site during the construction period and should be inspected periodically for damage and proper functions.

Fencing should be repaired, as necessary, to provide a physical barrier from construction activities.

Monitoring

Any trenching, construction or demolition that is expected to damage or encounter tree roots should be monitored by the project arborist or a qualified ISA Certified Arborist and should be documented.

The site should be evaluated by the project arborist or a qualified ISA Certified Arborist after construction is complete, and any necessary remedial work that needs to be performed should be noted.

Restrictions Within the Tree Protection Zone

No storage of construction materials, debris, or excess soil will be allowed within the Tree Protection Zone. Spoils from the trenching shall not be placed within the tree protection zone either temporarily or permanently. Construction personnel and equipment shall be routed outside the tree protection zones.



Root Pruning

When roots over two inches in diameter are encountered they should be pruned by hand with loppers, handsaw, reciprocating saw, or chain saw rather than left crushed or torn. Roots should be cut beyond sinker roots or outside root branch junctions and be supervised by the project arborist. When completed, exposed roots should be kept moist with burlap or backfilled within one hour.

Boring or Tunneling

Boring machines should be set up outside the drip line or established Tree Protection Zone. Boring may also be performed by digging a trench on both sides of the tree until roots one inch in diameter are encountered and then hand dug or excavated with an Air Spade® or similar air or water excavation tool. Bore holes should be adjacent to the trunk and never go directly under the main stem to avoid oblique (heart) roots. Bore holes should be a minimum of three feet deep.

Timing

If the construction is to occur during the summer months supplemental watering and bark beetle treatments should be applied to help ensure survival during and after construction.

Tree Pruning and Removal Operations

All tree pruning or removals should be performed by a qualified arborist with a C-61/D-49 California Contractors License. Tree pruning should be according to ANSI A-300A pruning standards and adhere to ANSI Z133.1 safety standards. Trees that need to be removed or pruned should be identified in the pre-construction walk through.

Tree Protection Signs

All sections of fencing should be clearly marked with signs stating that all areas within the fencing are Tree Protection Zones and that disturbance is prohibited. Text on the signs should be in both English and Spanish (Appendix E).



Appendix E: Tree Protection Signs

E1: English

WARNING Tree Protection Zone

This Fence Shall not be moved without
approval. Only authorized personnel
may enter this area!

Project Arborist



E2: Spanish

CUIDADO
Zona De Arbol Pretejido

**Esta cerca no sera removida sin
aprobacion. Solo personal autorizado
entrara en esta area!**

Project Arborist



Qualifications, Assumptions, and Limiting Conditions

Any legal description provided to the consultant is assumed to be correct. Any titles or ownership of properties are assumed to be good and marketable. All property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

All property is presumed to be in conformance with applicable codes, ordinances, statutes, or other regulations.

Care has been taken to obtain information from reliable sources. However, the consultant cannot be responsible for the accuracy of information provided by others.

The consultant shall not be required to give testimony or attend meetings, hearings, conferences, mediations, arbitration, or trials by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.

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Certification of Performance

I Richard Gessner, Certify:

That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and Terms of Assignment;

That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;

That the analysis, opinions and conclusions stated herein are my own;

That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;

That no one provided significant professional assistance to the consultant, except as indicated within the report.

That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any other subsequent events;

I further certify that I am a Registered Consulting Arborist® with the American Society of Consulting Arborists, and that I acknowledge, accept and adhere to the ASCA Standards of Professional Practice. I am an International Society of Arboriculture Board Certified Master Arborist® and Tree Risk Assessor Qualified. I have been involved with the practice of Arboriculture and the care and study of trees since 1998.

Richard J. Gessner



ASCA Registered Consulting Arborist® #496
ISA Board Certified Master Arborist® WE-4341B
ISA Tree Risk Assessor Qualified

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