

TO: JAMES L. APP, CITY MANAGER
FROM: DITAS ESPERANZA, CITY ENGINEER *DE*
SUBJECT: OAK TREE #1 - TRACT 2223-2 (BELLA VISTA)
DATE: MARCH 7, 2000

Needs: For the City Council to consider revisions to the City's street standards in order to save an oak tree.

- Facts:**
1. Tentative Tract Map 2223 was approved in 1997 by the Planning Commission. This approval showed a site plan that would require the removal of up to thirteen (13) oak trees.
 2. In December 1999, the applicant came before the City Council requesting that they be allowed to proceed with their approved site plan and remove 13 oak trees, plus 2 more, for a total of 15 oak trees to be removed.
 3. At the meeting, the City Council directed the applicant to return to the Planning Commission to evaluate his request for the removal of two (2) additional oak trees. The Council further gave direction to staff and the Planning Commission to work with the applicant and try to save as many of the oak trees as possible.
 4. On January 25, 2000, the applicant presented a revised plan to the Planning Commission, which only required the removal of eight oak trees. The Planning Commission agreed with the applicant to remove only seven of the eight trees requested by the applicant to be removed.
 5. On February 15, 2000, the City Council directed the applicant to submit a design to preserve Oak Tree #1, a 33-inch diameter blue oak in fair condition.

**Analysis
and**

Conclusion: The applicant has submitted a design that could save Oak Tree #1. In order to save the tree, the City Council would need to grant approval to deviate from the City's street standards:

- Reduce a portion of Bella Vista Court and Mesa Road from a city standard 40-foot street width to 34-feet.
- Install a handicap ramp utilizing a "sidewalk ramp" instead of a curb return ramp. The sidewalk ramp would not need a 4-foot landing area.

In addition to the deviations from standards, in order to save the tree, a retaining wall around the oak tree would need to be installed, either 4 feet or 7 feet high. As long as the wall is located at least 5-foot from curb face, sight distance should not be impaired.

The applicant wishes to install the higher retaining wall because they estimate that the smaller 4-foot wall would require importing 9000 cubic yards of dirt, which would cost an extra \$100,000.

Attached is a report from the arborist commenting on the proposed design scheme.

Policy

Reference: Oak Tree Ordinance

Fiscal

Impact:

The City would be responsible for maintaining the wall since it would be located in the City's right-of-way. Maintenance cost could be part of the Landscape and Lighting District and be charged to the property owners within Bella Vista Estates.

Options:

- A. For the City Council to approve deviations from the Street Standards to save a 33-inch blue oak in fair condition and approve a design as follows:
- Allow the street width to be 34-foot curb to curb, instead of 40-feet for portions of Bella Vista Court and Mesa Road.
 - Allow the installation of a sidewalk ramp instead of a curb return ramp.
 - Allow the installation of a 7-foot retaining wall on public right-of-way.
- B. That the City Council amend, modify or reject the above option.

Attachments: (1)

1) colored exhibits



Jack Brazeal's Tree Consulting

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4531 SKIPJACK LANE, PASO ROBLES, CALIFORNIA 93446



February 27, 2000

Matt Horn
EMK & Associates
1005 Railroad Street
Paso Robles, CA 93446

RE: Oak Tree Preservation & Protection Review. January 7, 2000.
Bella Vista Estates
Tract 2223, Phase II
Paso Robles, California

Reference #103

Dear Matt,

I have reviewed your latest submittal for tree protection and tree preservation for tree #1 at Bella Vista Estates, Tract 2223, Phase II. Consequently, I am still opposed to the design of protection and preservation, primarily because I don't believe the tree will survive the proposed impacts. I understand that the tree protection and tree preservation measures recommended are in conflict with the approved grading scheme. If it is unrealistic to change the grading scheme or is cost prohibitive, then the alternative will be to remove the tree.

SUBJECT

Tree #1 - 33" diameter blue oak tree (lot #85). Fair condition, to be retained. Impacted by proposed grading plan.

Mitigation: Do not grade as proposed. Make the elevation change at Bella Vista Court. Install retainer walls at the back of the sidewalk. Eliminate the parkway (planting strip) on this corner. Install a tree protection fence at the outside of the tree canopy (dripline) or as close to the dripline as possible. Do not disturb the soil in the protected area.

DISCUSSION:

Tree Health: Fair

The health rating used for trees in this tract is based on the following method:

0 to 10 = 0% to 100%

0	=	Dead
1-3	=	Poor
4-6	=	Fair
7-9	=	Good
10	=	Excellent

This 33 inch diameter blue oak tree is rated as fair or 4-6 or 40% to 60%. After reviewing this tree for the second time, I have determined that this tree's health condition is on the low side of the fair rating or about 40%. A 40% health rating means that this tree has declined approximately 60% from an excellent rating. The reason for this serious decline over the years is multiple and complex, but primarily is due to root loss. Root loss can be caused by many factors, i.e., erosion, compaction, farming, mechanical, insects, rodents, crown and root rot, environmental conditions and the list goes on. The point is this tree has been impacted for many years and restoration to a healthy tree will be challenging. Minor changes to the root zone area could be mitigated with proper and continuous cultural care but major impacts as proposed will result in the decline of this tree and death after a short period of time.

BLUE OAK (Quercus douglasii) TREE:

The blue oak tree is unique due to its ability to withstand long periods of drought and the hot, dry weather that is typical for the Paso Robles area. The biology and genetic make-up of this tree is too extensive to explain here but the important factor is the non-extensive, but far-reaching, root system needed to support this tree's need for water and essential nutrients. A normal root system of a variety of trees usually extends as much as 2 to 3 times their canopy width. The blue oak tree root system can, and does extend much further than this in their search for water and nutrients. To sever these roots would be the equivalent of removing a life support system from an ailing person.

CONCLUSIONS:

1. This tree is rated as fair and if not impacted further, could possibly be stopped from declining with proper and continuous cultural care.
2. This tree is in declining health and the impacts proposed in the design of your last submittal will be detrimental to this tree to the point of demise.

RECOMMENDATIONS:

1. Change the grading scheme approved for this tract to a configuration that will accommodate the health and longevity of this tree, which will include rerouting streets and a new lot design.
2. Proceed with the approved grading plan scheme and remove this tree.

Jack Brazeal, ASCA
Registered Consulting Arborist

Design Review

Proposed Design

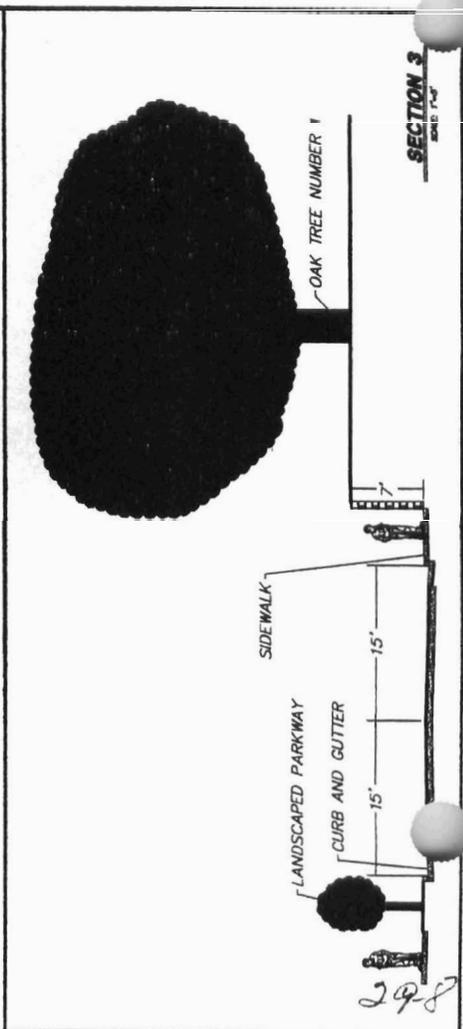
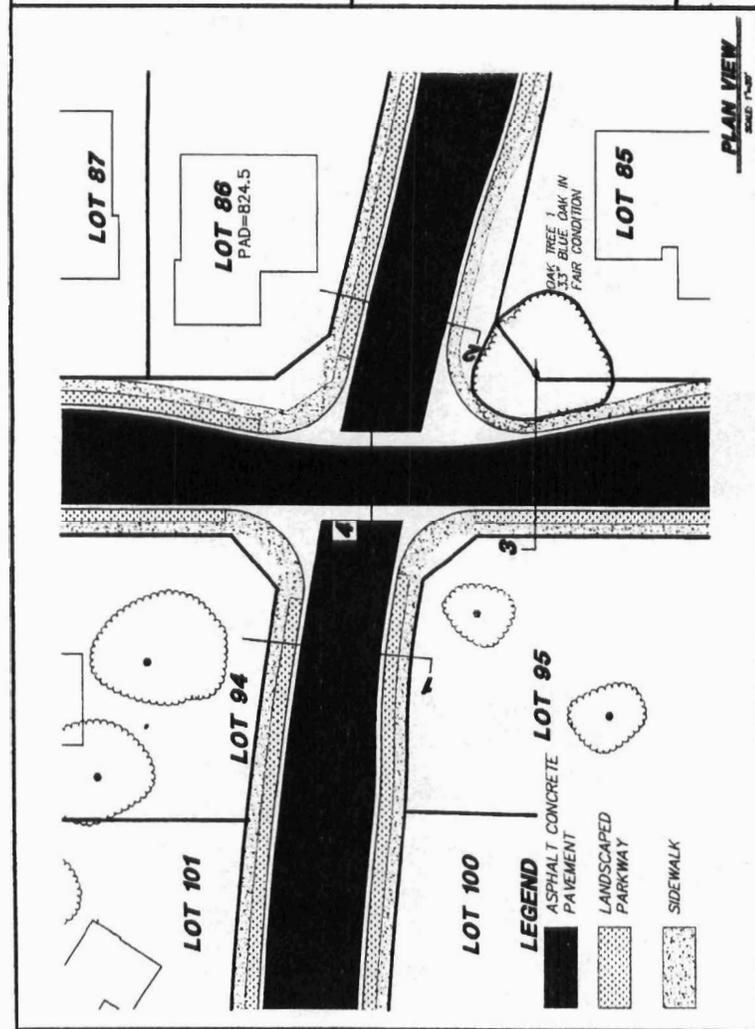
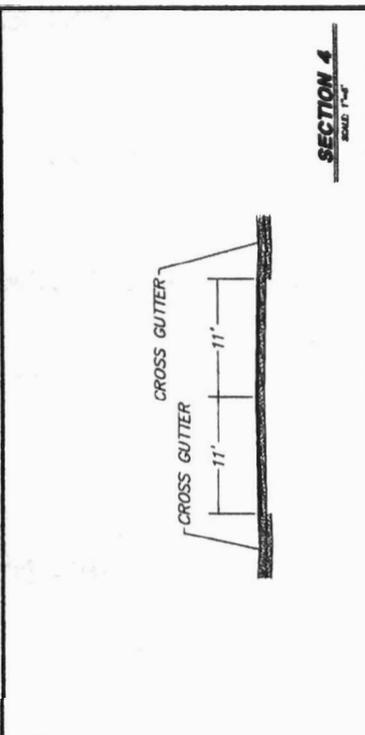
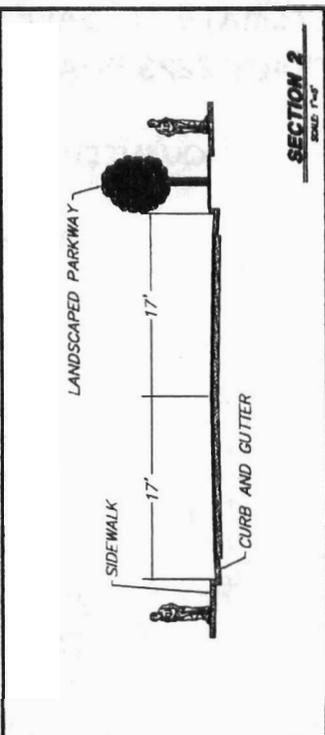
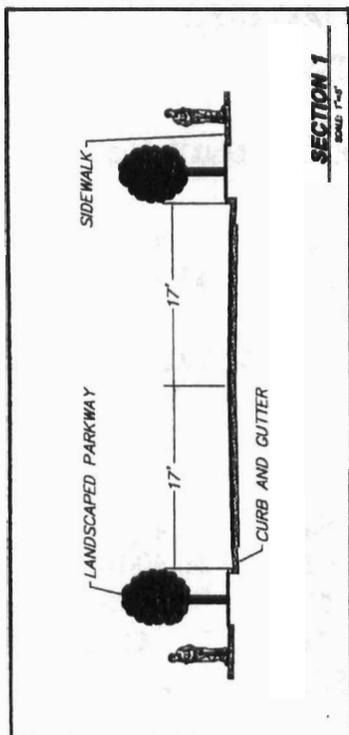
The proposed design to save Oak Tree 1 concept is to narrow the streets at the intersection of Bella Vista Court and Mesa Road. By narrowing the streets, it allows us to install sidewalks and handicap ramps while remaining outside of the drip line of Oak Tree 1. This design will cost \$30,400.

Alternate Design

The alternate design utilizes the same horizontal plan as the proposed design. The alternate differs in the vertical grading. At the intersection of Mesa Road and Bella Vista Court, we decrease the cut 3' so that we can use a smaller retaining wall. The retaining wall decrease in height from 7' to 4'. Raising this intersection impact the northly portion of Bella Vista Court and adjacent lots. This design will cost \$115,981.

**COST ESTIMATE TO SAVE OAK TREE 1
TRACT 2223 PHASE TWO**

DESCRIPTION	QUANTITY	UNITS	UNIT COST	TOTAL COST
PROPOSED DESIGN				
1) 7' RETAINING WALL	960	S.F.	\$25.00	\$24,000.00
2) EXCAVATION AT DRIP LINE	1	L.S.	\$6,400.00	\$6,400.00
		TOTAL		\$30,400.00
ALTERNATE DESIGN				
1) 4' RETAINING WALL	960	S.F.	\$10.00	\$9,600.00
2) EXCAVATION AT DRIP LINE	1	L.S.	\$6,400.00	\$6,400.00
3) DIRT COST	9000	C.Y.	\$1.75	\$15,750.00
4) DIRT LOADING LABOR	9000	C.Y.	\$1.00	\$9,000.00
5) TRUCKING PER LOAD	643	EACH	\$117.00	\$75,231.00
		TOTAL		\$115,981.00



NEW & ASSOCIATES, INC.
REGISTERED PROFESSIONAL ENGINEER
CIVIL
NO. 21340
STATE OF CALIFORNIA

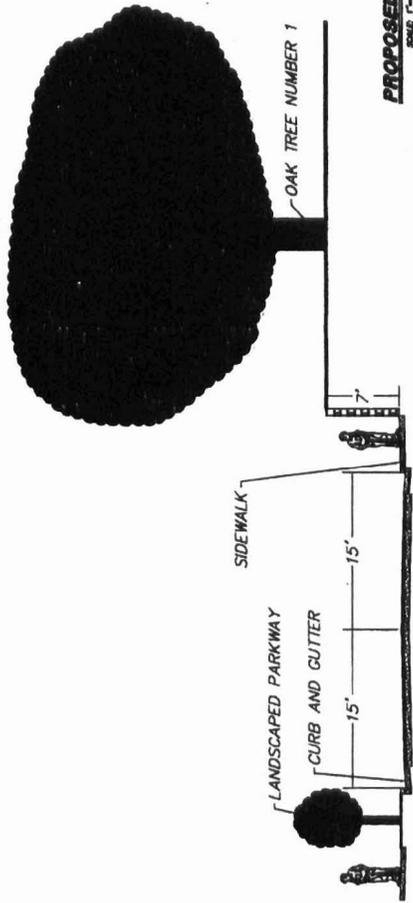
TRACT 2223 PHASE 2
PROPOSED DESIGN

DEPARTMENT OF PUBLIC WORKS
CITY OF PALO ALTO, CALIFORNIA

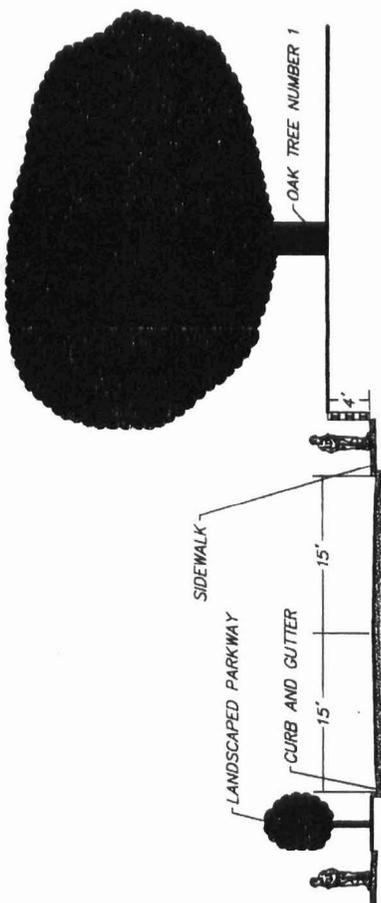
SCALE: SHEET NO.
DESIGNED BY: DATE:
DRAWN BY: DATE:
CHECKED BY: DATE:
APPROVED BY: DATE:

PROJECT NO. 98-329
DATE: 2/90
SHEET NO. 1 OF 1

298



PROPOSED DESIGN
SCALE: 1"=4'



DESIGN ALTERNATE
SCALE: 1"=4'

NEW & ASSOCIATES, INC.
REGISTERED PROFESSIONAL ENGINEER
No. 21348
CITY OF SAN FRANCISCO
EXPIRES 12/31/2018

DATE: 2/10/18
PROJECT NO.: 18-139

DEPARTMENT OF PUBLIC WORKS
CITY OF SAN FRANCISCO, CALIFORNIA
DESIGNED BY: DATE: CHECKED BY: DATE: DRAWN BY: DATE: PROJECT NO.: 18-139

TRACT 2225 PHASE 2
DESIGN ALTERNATE

