TO: **JAMES L. APP, CITY MANAGER**

FROM: **RON WHISENAND, COMMUNITY DEVELOPMENT DIRECTOR**

SUBJECT: **OTR 05-008 - REQUEST TO REMOVE TWO OAK TREES (CARDINALE/MORRIS)**

DATE: **APRIL 4, 2006**

Needs: For the City Council to consider a proposal by Joe Cardinale and Dick Morris, to remove two healthy oak trees on the property located on the south side of 4th Street, just west of Oak Street (see attached Vicinity Map, Attachment 1).

Policy Reference: Paso Robles Municipal Code Section 10.01.010 (Oak Tree Ordinance) provides in relevant part the following purpose statement:

10.01.010 Purpose and Intent

A. It is declared that the public interest and welfare requires that the city establish a program for the preservation of oak trees in order to maintain the heritage and character of the city of El Paso de Robles ("The Pass of the Oaks") as well as preserve the beauty and identity of the community.

F. Preservation of existing oak trees and opportunities to promote the establishment of new oak trees shall be a focus of the Planning Commission and/or City Council in conjunction with consideration of any development project or development related entitlement. Public education regarding the value of preserving oaks and other trees shall be promoted by the City of El Paso de Robles.

Facts: 1. Section 10.01.050.C of the Municipal Code, states as follows:

C. Except as specifically provided in Section 10.01.050 of this chapter, the director shall not be authorized to approve removal of a healthy oak tree that is six inches or greater DBH. The only oak trees which are six inches or greater DBH whose removal the director is authorized to permit are trees that are in the director's judgment, clearly dead or diseased beyond correction. The extent to which a tree may be diseased shall be subject to evaluation by an arborist. Based on the recommendation of an arborist the director may authorize removal of a tree that is diseased beyond correction.

2. The Director, after reviewing the Arborist Report by Jim Lewis of Davey Resource Group, and inspecting the trees in the field, could not make a determination that the trees are clearly dead or diseased beyond correction, and could not approve the removal of the trees under his own authority.

3. Since the Director could not determine that the trees are clearly dead, or diseased beyond correction, the Director requested that a second Arborist review the trees and submit a report on the health of the trees.

4. Carolyn Leach submitted a report on the trees, where in she concluded that the trees are healthy and should be preserved, except for tree C, which both Arborists concluded, should be removed. (Carolyn Leach's report is included in this report as Attachment 6)

5. Since the Director, along with the second Arborist, could not make the determination that "the trees are clearly dead or diseased beyond correction," the Oak Tree Ordinance would prohibit removal pursuant to Section 10.01.050.C.

6. Removal of healthy trees is guided by Section 10.01.050.D of the Oak Tree Ordinance, which states:

   D. If a request is being made to remove one or more healthy oak trees for which a permit to remove is required, the director shall prepare a report to the City Council, outlining the proposal and his recommendation, considering the following factors in preparation of his recommendation.

      1. The condition of the oak tree with respect to its general health, status as a public nuisance, danger of falling, proximity to existing or proposed structures, interference with utility services, and its status as host for a plant, pest or disease endangering other species of trees or plants with infection or infestation;

      2. The necessity of the requested action to allow construction of improvements or otherwise allow reasonable use of the property for the purpose for which it has been zoned. In this context, it shall be the burden of the person seeking the permit to demonstrate to the satisfaction of the director that there are no reasonable alternatives to the proposed design and use of the property. Every reasonable effort shall he made to avoid impacting oak trees, including but not limited to use of custom building design and incurring extraordinary costs to save oak trees;

      3. The topography of land, and the potential effect of the requested tree removal on soil retention, water retention, and diversion or increased flow of surface waters. The director shall consider how either the

preservation or removal of the oak tree(s) would relate to grading and drainage. Except as specifically authorized by the planning commission and city council, ravines, stream beds and other natural water-courses that provide a habitat for oak trees shall not be disturbed;

4. *The number, species, size and location of existing trees in the area and the effect of the requested action on shade areas, air pollution, historic values, scenic beauty and the general welfare of the city as a whole;*

5. *Good forestry practices such as, but not limited to, the number of healthy trees the subject parcel of land will support.*

Analysis And Conclusion:

After reviewing the information submitted by the Applicants along with the Arborist Reports by Jim Lewis and Carolyn Leach, staff is unable to conclude that oak trees A & B are "clearly dead or diseased beyond correction." Therefore, removal of oak trees A & B must be evaluated pursuant to Section 10.01.050.D of the Oak Tree Ordinance that requires specific findings that the tree poses a public nuisance or reasonable development of the property can not occur without removal.

Besides tree C, which is recommended to be removed, trees A & B are not a public nuisance, in danger of falling, are not in proximity to existing structures or utilities. They do not appear to be host for a plant, pest or disease endangering other species of trees or plans with infection or infestation. They are in proximity to proposed structures in the conceptual plans.

Although the entire property could be considered a ravine, trees A & B are located higher on the slope and at the edge of the 100-year flood area. The disturbances to this area that have occurred with development do not make this a pristine habitat that in itself would support preservation (Section 10.01.050.D.3). However, preserving trees A & B supported with further native plantings in the ravine with future development will improve the quality of this area.

The applicants have submitted a letter to the City Council, dated March 14, 2006, explaining their reasons for removal. Attached to the letter are letters from various Engineers and Architects with various conceptual plot plans. (Applicant's Letter is attached to this report – Attachment 3)

Since the plans submitted are very conceptual and prepared by three separate consultants, it is not clear how the plans relate to each other. However, based on the limited coverage of the oak trees in relation to

the overall building site area, it appears that options exist to develop these properties consistent with the preservation goals of the City Oak Tree Ordinance, although because of the limits of the oaks and the floodway, the number of lots/dwelling units may have to be reduced.

Fiscal Impact: None.

Options:

A. 1. Adopt Resolution No. 06-xx upholding the Community Development Director's recommendation denying the request to remove the two oak trees (A and B), based on the determination that the condition of the trees are not clearly dead or diseased beyond correction, and require that the applicants design a project in accordance with the Oak Tree Ordinance, with the goal of preserving the Oak Trees A and B.

2. Allow the removal of Tree No. C, based on both Arborist Reports indicating that the tree is diseased beyond correction and not require replacement trees, since the decline of the trees was not the fault of the property owners and appears to be of natural causes.

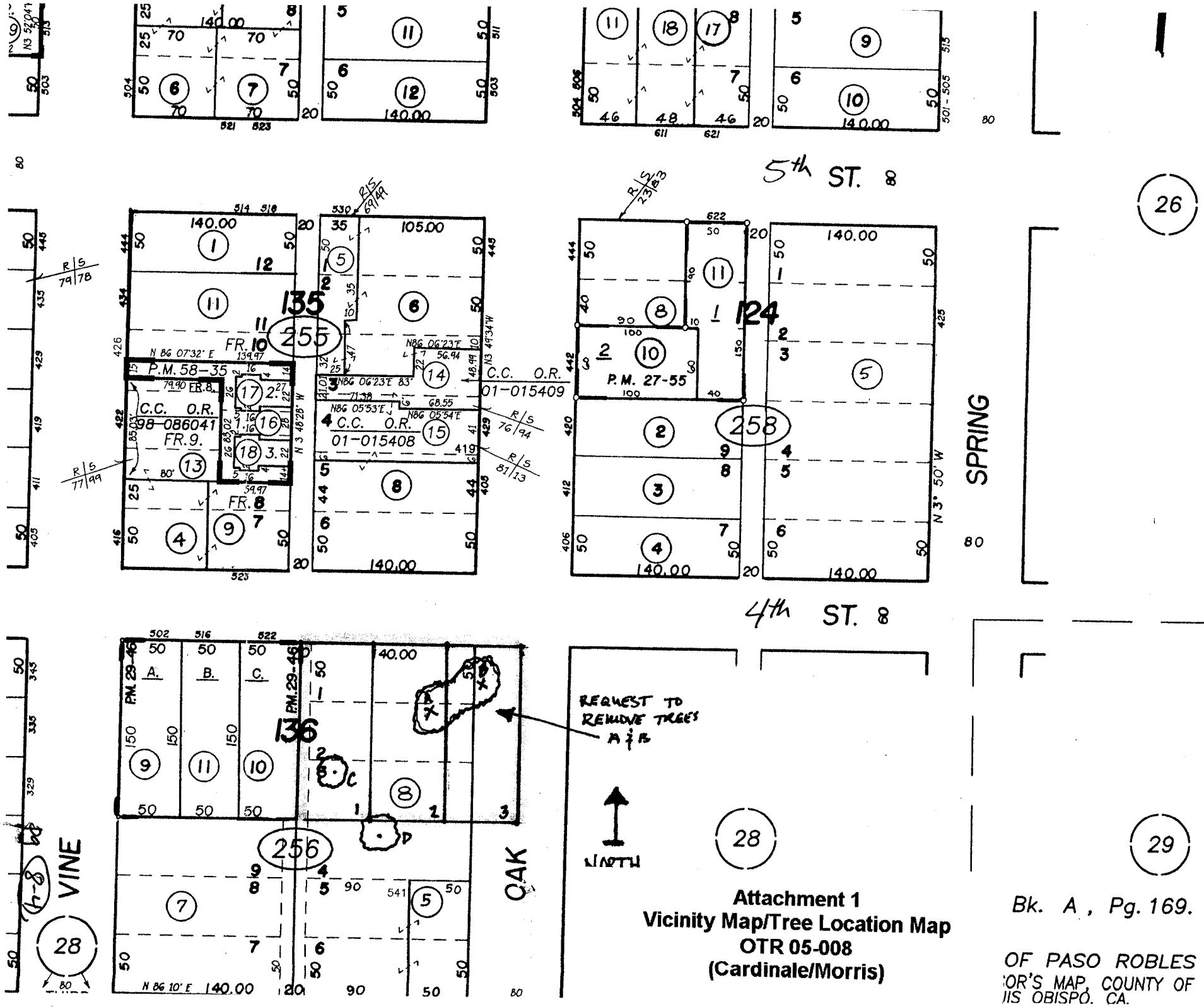
B. That the City Council make findings that Trees A, B and C are clearly dead or diseased beyond correction, and direct staff to return to the City Council with a resolution to remove the trees for the consent calendar for the April 18, 2006 Council meeting.

C. Amend, modify or reject the above options.

Attachments:

1. Vicinity Map/Tree Location map
2. Photos of Trees
3. Letter from Dick Morris dated March 14, 2006
4. Jim Lewis Arborist Report, with update dated 11/10/03
5. Revised Arborist Report from Jim Lewis dated 12/31/06
6. Carolyn Leach Arborist Report
7. Resolution to deny the request to remove the trees

H:\Darren\oaktree\Cardinale\April4th CC Report



Attachment 1
Vicinity Map/Tree Location Map
OTR 05-008
(Cardinale/Morris)

Bk. A, Pg. 169.

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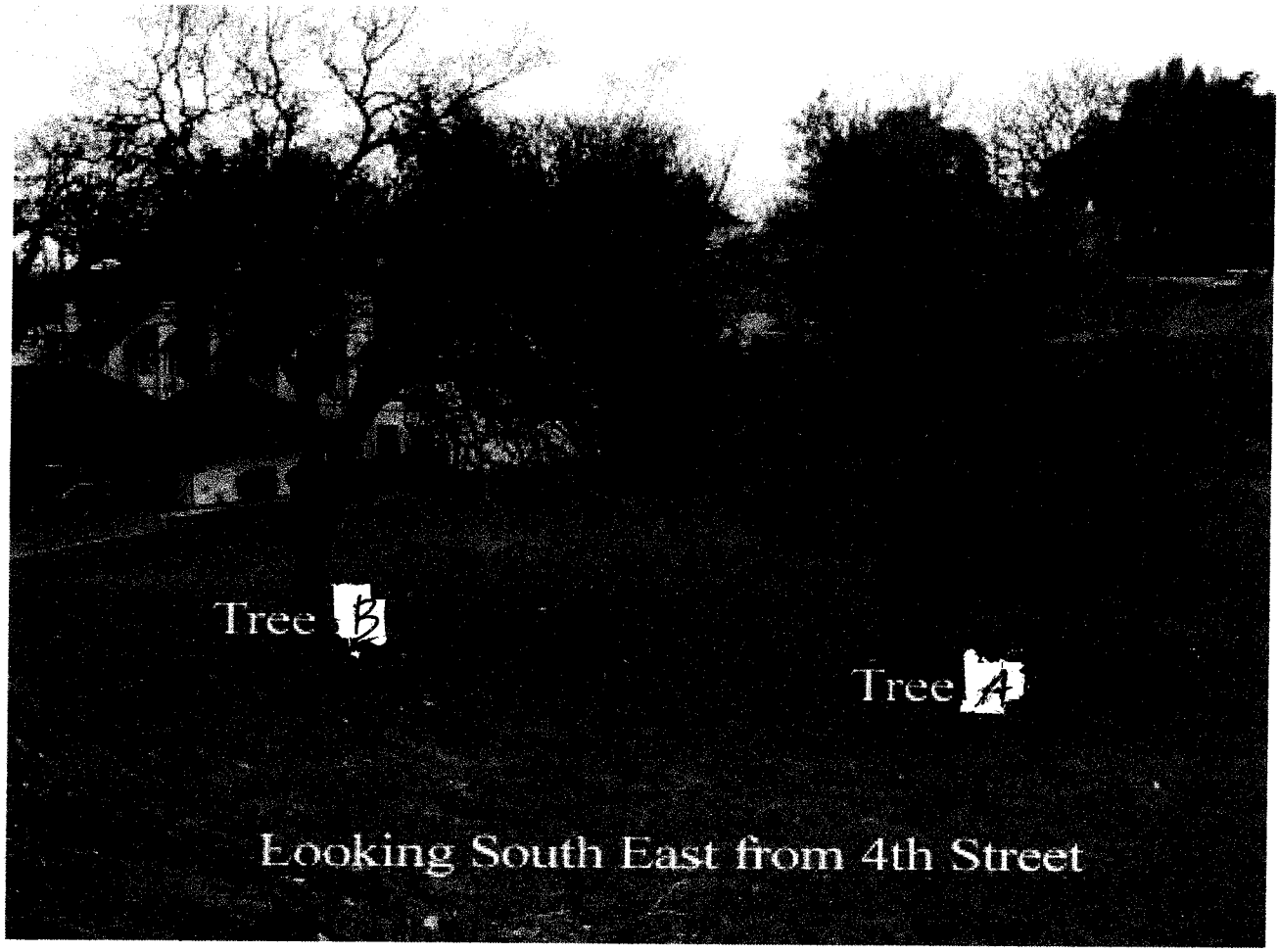
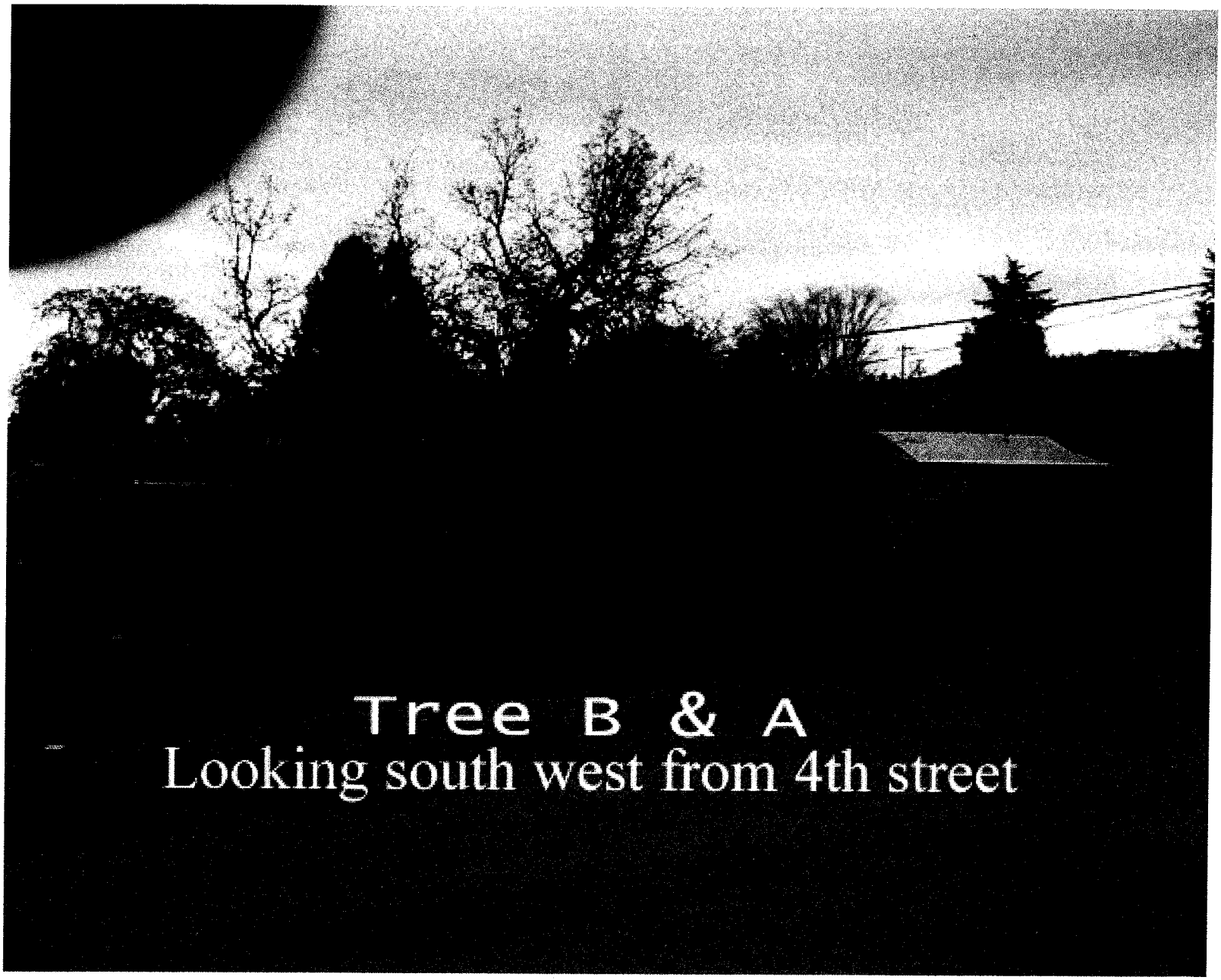
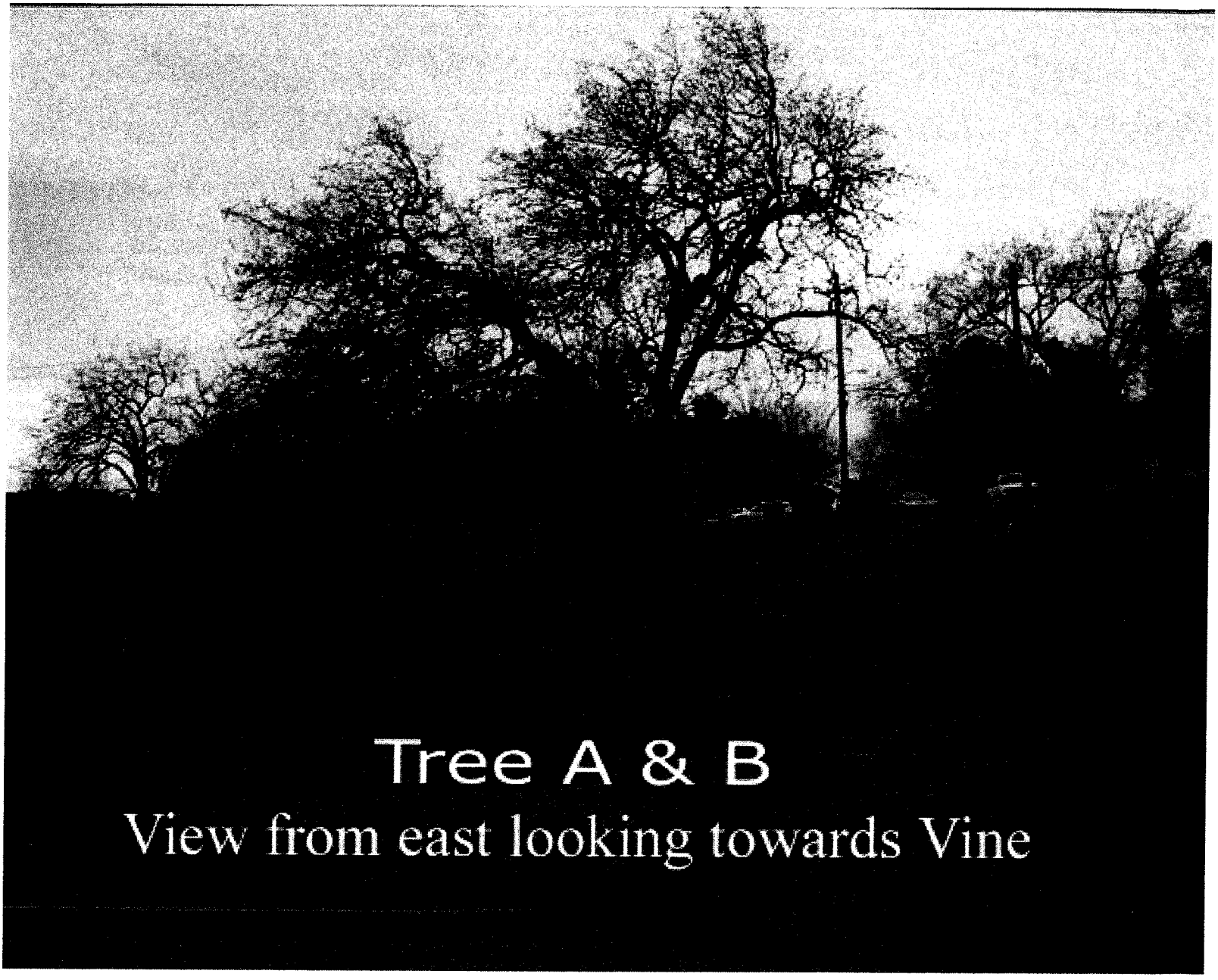


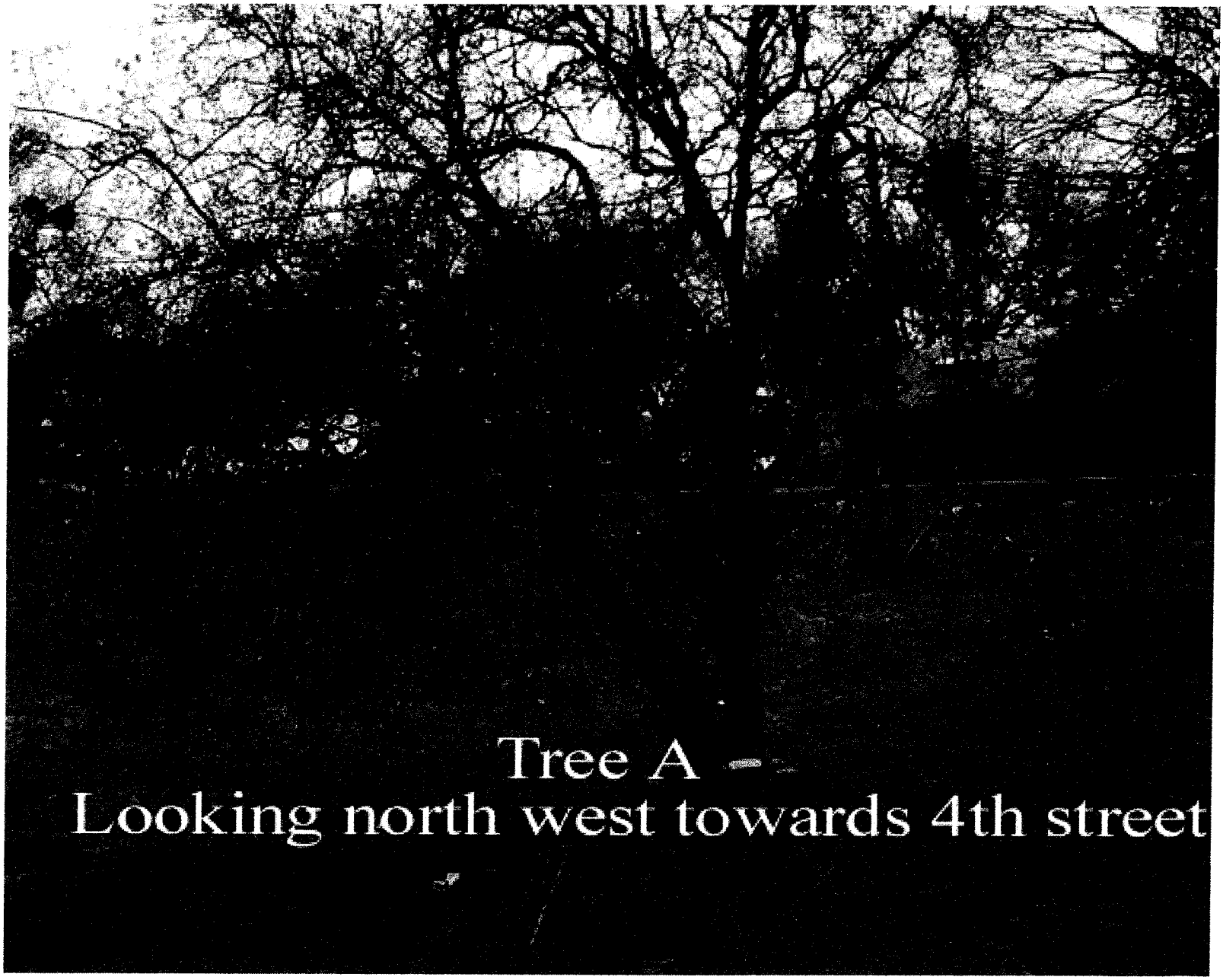
Attachment 1 (a)
Photos
OTR 05-008
(Cardinale/Morris)



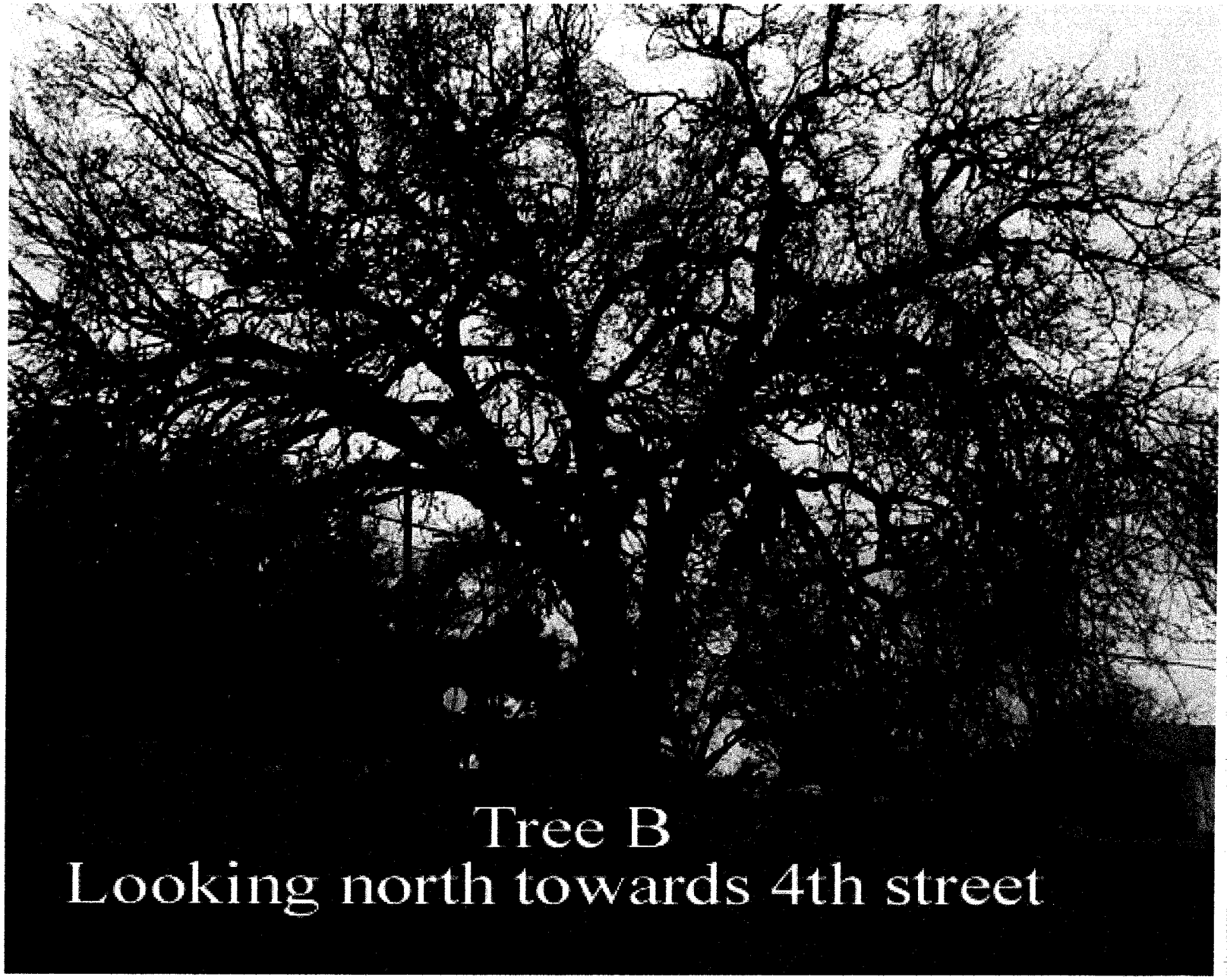
Attachment 2 (b)
Photos
OTR 05-008
(Cardinale/Morris)



Attachment 2 (c)
Photos
OTR 05-008
(Cardinale/Morris)



Attachment 2 (d)
Photos
OTR 05-008
(Cardinale/Morris)



Attachment 2 (e)
Photos
OTR 05-008
(Cardinale/Morris)

Attachment 2(f)
Photos
OTR 05-008
(Cardinale/Morris)

March 14, 2006

Mayor Frank Mecham
City Council Members
City of Paso Robles
1000 Spring Street
Paso Robles, CA. 93446

SUBJECT: CARDINALE/MORRIS PROPERTY –4TH STREET—PASO ROBLES

Dear Mayor Mecham and Members of the City Council:

I was not able to attend the meeting previously held on this issue on February 7, 2006. I have listened to the transcription of the meeting and would like to offer some responses and observations regarding that hearing and the upcoming hearing.

During the course of the previous hearing there seemed to be a great deal of concern and discussion about whether the tree removal application was driven by the condition of the trees or by our desire to have more of a building envelope on our proposed Parcel 3, PRAL 04-181. The fact is that the application is "driven" by an attempt to properly and logically plan development on three lots in the City that are currently configured in an unusual and atypical manner. This is a planning issue. From a planning viewpoint, we could choose to develop the property without regard to property lines and without removing the trees currently in question, the result being potentially higher density PUD. Such a development would require that the already identified and agreed upon dying trees be removed, and would require innovative design and possibly significant grading, but there is plenty of land to be developed on the site if one were willing to work at it. The removal of the two dead or dying trees mentioned in our arborists report were not the subject of our application because there was no dispute over their condition and we

assumed that removing them would not require anything more than a simple application at the time development began. Mr. Cardinale and I have pursued many such options over the past 3 years, as evidenced by the attached conceptual drawings from some very good designers. We have spent thousands of dollars with architects and engineers trying to find ways to design a project which does not impact the floodplain, does not require excessive grading, and provides a logical and attractive development for our City. We have come to the conclusion that it would be the most economical, practical and prudent plan to try to develop 3 sites that front on 4th Street, take access from 4th Street, and do not result in an assortment of dissimilar buildings cascading down the slopes and into the lower areas of the property. Paying for precise plans and drawing prior to knowing where one would be allowed to build is obviously not feasible. We have provided site plans and footprints for every site considered in our application. We have attached pictures of what we would hope to provide as an affordable, infill project in an area that is now blighted by tires, dirt bike tracks, beer cans, and trash.

As to the two trees that the application covers I would like to point out that the arborist we hired was chosen from the list of City Approved Arborists. According to City Planner Mr. Nash, the city frequently requires a second opinion from an arborist chosen by the City in cases where the trees under consideration are not obviously dead. Well, now we have a second opinion from an arborist whose report, in essence, says Mr. Lewis is, at the very least, mistaken in his findings. Now the City Council is placed in a position of trying to decide which arborist is right. I do not envy any of you the position in which you have been placed. As you deliberate, please do not lose sight of the fact that the 3 lots in question are viable building lots regardless of their alignment. This is an opportunity for the City to lead with its' best foot, putting logic and good planning first.

It is also an opportunity for the City to require mitigation measures to increase the population of oak trees in the area, a requirement that Mr. Cardinale and I have repeatedly offered to willingly exceed for the good of the City. The opportunity to require such mitigation may not attend subsequent discussions regarding this property, and Mr. Lewis has already stated that the trees planted in mitigation will generate more "tree" in the near future than the two presently in question. Again, this is a planning issue. Can the City make a decision about trees without having a plan? Do we plan to keep trees that are in questionable health, or do plan to have new trees planted that will truly address the intent of the ordinance, to preserve and enhance the character of the community? Let me interject here that the second report was not paid for by the City but by the applicant, who had already paid for an arborist's report as required by the Oak Tree Preservation Ordinance. I find it stupefying that an applicant should make an application "by the book" and then be required to pay for another arborist who may want to challenge the independently found opinions of the arborist we hired at random.

Thank you for your time and attention to this application. This is an investment in the community for us and we hope to see it have a positive impact for the neighborhood. We trust you will agree that our application should be approved for the sake of logic, integrity, planning, and the good of the City

Yours truly,

Richard M. Morris
711 12th Street
Paso Robles, CA. 93446

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3. **LETTER OF SUPPORT FROM STEVE SYLVESTER, NORTH COAST ENGINEERING**

4. **LETTER OF SUPPORT FROM JEFF SCHNIEDEREIT, ARCHITECT**

5. **STREET VIEW OF PROPOSED STYLE AND CONSTRUCTION OF NEW DEVELOPMENT.**

6. **PLAN SHOWING ALL SURROUNDING LOTS, STREETS, TREES TO REMAIN, 100 YEAR FLOOD, EXISTING AND PROPOSED CONFIGURATION OF 3 LOTS IN QUESTION.**

7. **ORIGINAL CONCEPTUAL DRAWINGS FROM NICK GILMAN, ARCHITECT, SHOWING 6 BUILDING SITES.**

8. CONCEPTUAL DRAWINGS PROVIDED BY JEFF SCHNEIDEREIT, ARCHITECT, FOR HIGH DENSITY DEVELOPMENT (13 UNITS)

8A. FLOOR PLANS FOR 13 UNITS ABOVE

9. REVISED DRAWINGS FROM SCHNEIDEREIT FOR 9 UNIT DEVELOPMENT

10. , 11, 12. REVISED DRAWING REQUESTED AT PREVIOUS CITY COUNCIL MEETING SHOWING COMBINED DRIVEWAYS FOR DUPLEX UNITS.

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14. SITE PLAN FOR PROPOSED LOT 2, PRAL 04-181

15. SITE PLAN FOR PROPOSED LOT 3, PRAL 04-181

16,17. SITE PLAN/BUILDING AREAS FOR EXISTING PARCEL 3.

18. SITE PLAN FOR LOT 1, PRAL 04-182

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MCCARTHY ENGINEERING, INC.
PROJECT DEVELOPMENT, TRAFFIC AND CIVIL ENGINEERING

March 7, 2006

Mayor Frank Mecham
City Council Members
City of Paso Robles
1000 Spring Street
Paso Robles, CA. 93446

Subject: Cardinale/ Morris Property – 4th Street - Paso Robles

Dear Mayor Mecham and Members of the City Council:

I have worked with Joe Cardinale and Dick Morris for the better part of a year to provide viable residential lots off 4th Street. Currently, these lots are severely impacted by the 100 year flood plain, and existing topography. The goal is to align the lots in a pattern similar to other lots in that block.

Their proposal for the lot line adjustment is reasonable and workable for this area of town. An arborist has provided a report that recommends the removal of trees which are in severe decline/removal stage.

With this in mind, the applicants have made every effort to design their project with minimal impacts to the oak trees, except for those recommended by the Arborist for removal. Clustering of units, common driveways and minimal grading are all positive design elements being proposed. The project is in keeping with the City's goal for additional smaller, more affordable housing units on the West Side.

Based on my review of the project, it appears the applicant has made every attempt to design the project to minimize impacts. While removal of oak trees should be done only after considerable deliberation, there seems to be valid justification in this case for the arborist recommended removal.

I would encourage your support of the Cardinale/Morris request.

Sincerely,

John R. McCarthy P.E.

737 ORCHARD DRIVE, PASO ROBLES, CALIFORNIA, 93446
(805)238-9585 (805)237-8556 FAX
e-mail mac@tcsn.net

March 10th, 2006

Mayor Frank Mecham
City Council Members
City of Paso Robles
1000 Spring Street
Paso Robles, California 93446

RE: Cardinale / Morris Lot Line Adjustment, 4th & Oak Streets, Paso Robles

Dear Mayor Mecham and City Council:

Gentlemen, by any rational planning standard, the proposed lot line adjustment should be supported and approved.

I was originally involved with this property with a competing investment group. When Joe and Dick ended up with it, I happily shared our thinking as to it's best use. Since none of the newly subdivided lands in Paso Robles provide appropriatly for modest range consumers, we have been forced to look at left-over parcels, infill. Often, these parcels are very challenging in regards to terrain, utilities, access problems, let alone trees. That is certainly the case here.

The City will see a significant net gain with this project. Removal of the grove of weed 'Ailanthus' trees is an asset already. Adding to the inventory of modest housing is more important. The applicant's proposal to meet, or exceed, the ordinance requirements for the two removed trees is sufficent mitigation.

This lot line adjustment and project should be approved and encouraged.

Respectfully,

Nick Gilman

Nick Gilman, Architect

NORTH COAST ENGINEERING, INC.
Civil Engineering ▪ Land Surveying ▪ Project Development

March 1, 2006

Mayor Frank Mecham
City Council Members
City of Paso Robles
1000 Spring Street
Paso Robles, California 93446

Dear Mayor Mecham and Members of the City Council:

Joe Cardinale has asked us to review the site design for his proposed project located on 4th Street in regard to reducing or eliminating impacts to existing oak trees. The project consists of a lot line adjustment to relocate three lots to be accessible from 4th Street. Currently the lots have very limited accessibility and are significantly constrained by the 100 year flood plain which passes through the properties. Reorienting the lots provides access from 4th Street and building areas along 4th Street that are outside the 100 year flood plain. The proposed lots are consistent with the existing lots located immediately west of the proposed project.

There are three oak trees located on the proposed lots. We have not reviewed the arborist report for these oaks, so we have no comment on the condition. The site plans we have reviewed appear to be designed in a very compact manner with the clear intent to minimize impacts to the oaks, however, in order to construct buildings on these lots, it appears necessary to remove at least the 24" oak and probably the multi-trunk 14" oak. The 38" oak on the westerly lot would be preserved. The easterly lot in particular cannot be developed without removal of the oak. It does not appear that the proposed project could be designed in any other way to minimize these impacts.

These proposed lots are located in downtown Paso Robles in a location very appropriate for the construction of smaller, lower priced housing units. While it is always unfortunate to remove existing oak trees, there does not appear to be a reasonable alternative. We would encourage your support of Mr. Cardinale's request.

Sincerely,

Steven J. Sylvester, P.E.
President

SJS/jms

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March 13, 2006

City of Paso Robles
Planning Department
1000 Spring Street
Paso Robles, CA 93446

Re: 3rd & 4th Street Property Development

To Whom It May Concern:

This letter is to inform the City Council that our office has made numeruous design configurations for the Morris/Cardinale property in Paso Robles, ranging from a high density PUD to a straightforward duplex design paralleling the already improved lots to the west of the subject property. Given the constraints of the flood plan, the trees that were recommended for removal, and the antiquated design of the lots in question, it is my considered opinion that from a planning perspective, it is in the city's best interest to approve the lot line adjustment and permit the removal of the two trees in question. According to the qualified arborist, Jim Lewis, the net benefit to the City from the replacement tress will more than mitigate the removal of these two diseased trees.

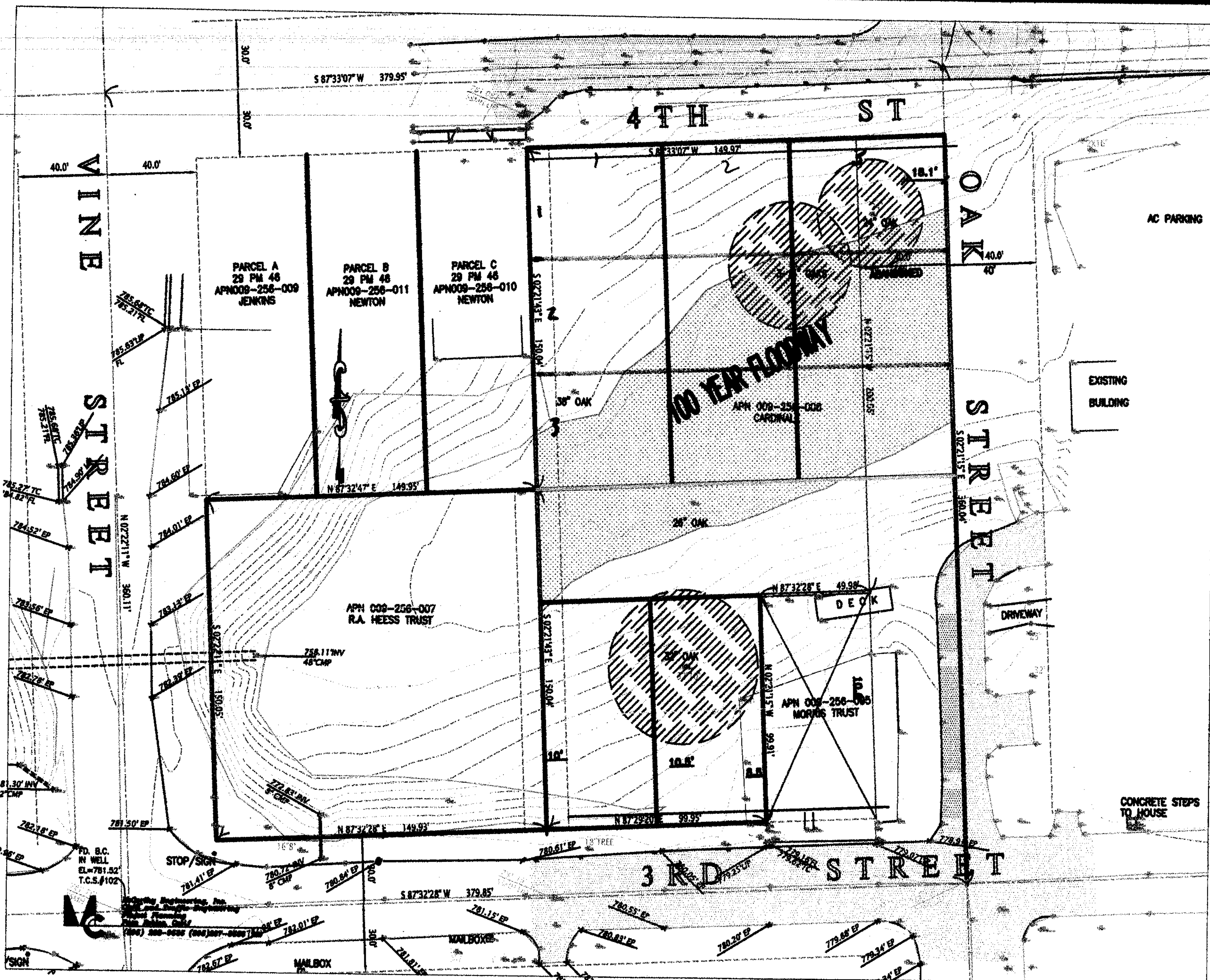
Please call if you have any questions.

Thank you,

Jeff Schneidereit, AIA

Cc: Dick Morris
Joe Cardinale

Jeffrey Schneidereit
101
Main
Street
Templeton
California
93465
phone
805
434
0277
fax
805
434
0276
website
jschneidereit
architects.com
licenses
C-22524 B-12404 C-1061



No.	Revision/Issue	Date

McCarthy Engineering
737 Orchard Drive
Paso Robles, CA.
805-238-9585

Cardinale/Morris

Oak Street between
3rd and 4th Streets

Project	Sheet
Date 3/9/06	1 of 1
Scale 1"=20'	

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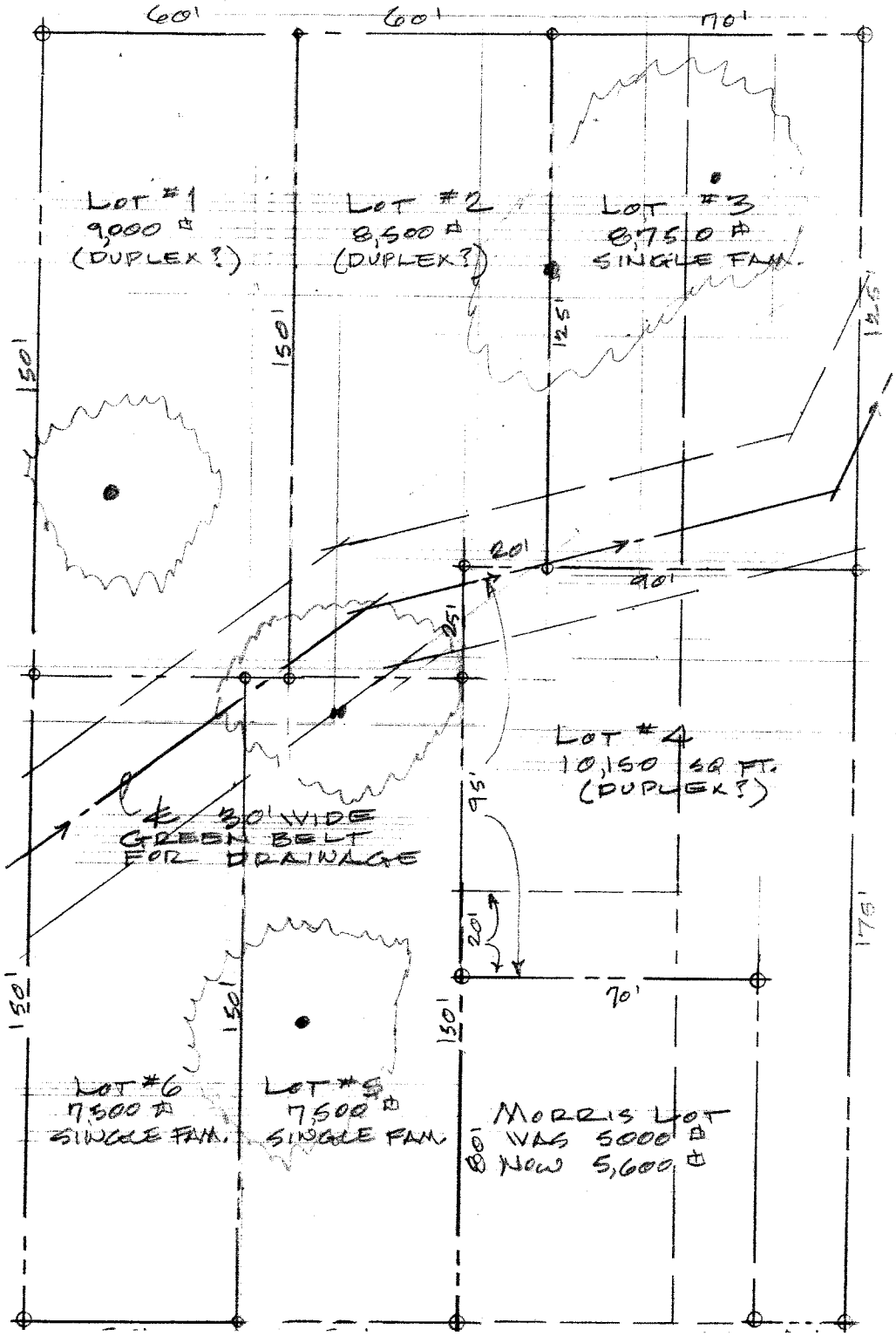
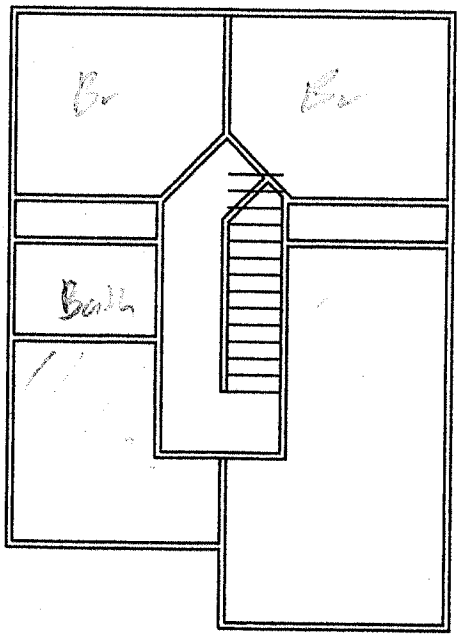

60'
60'
70'
LOT #1
9,000 □
(DUPLEX?)
LOT #2
8,500 □
(DUPLEX?)
LOT #3
8,750 □
SINGLE FAM.
150'
150'
125'
125'
20'
90'
25'
LOT #4
10,150 SQ FT.
(DUPLEX?)
95'
℄ 30' WIDE
GREEN BELT
FOR DRAINAGE
20'
70'
175'
150'
150'
150'
LOT #6
7,500 □
SINGLE FAM.
LOT #5
7,500 □
SINGLE FAM.
MORRIS LOT
80' WAS 5000 □
NOW 5,600 □

8


760
765
770
755
EXISTING
BUILDING
755' BASE FLOOD ELEVATION
FLOODZONE 100- YEAR
756
762
764
766
DECK



LOWER FLOOR

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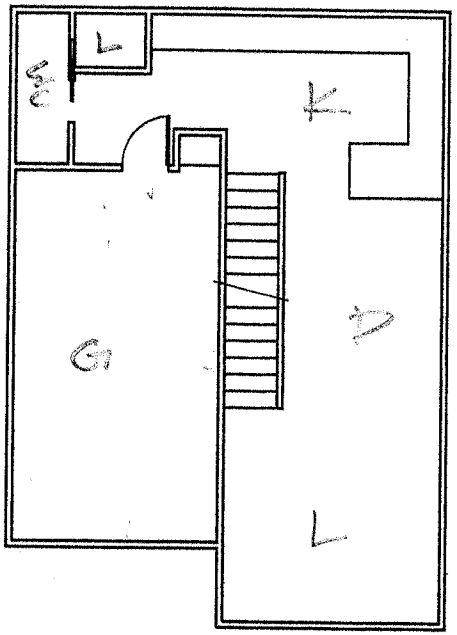

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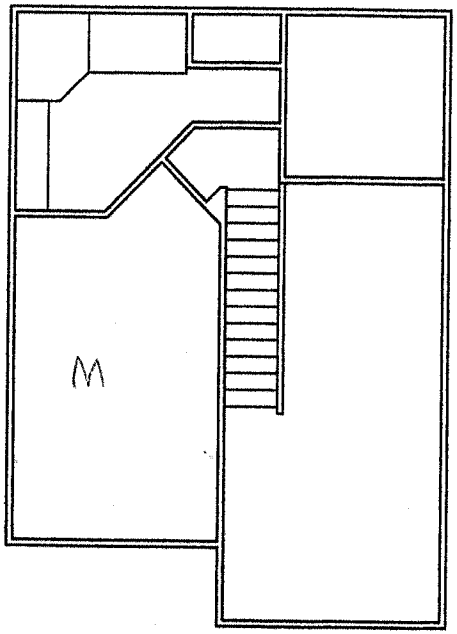

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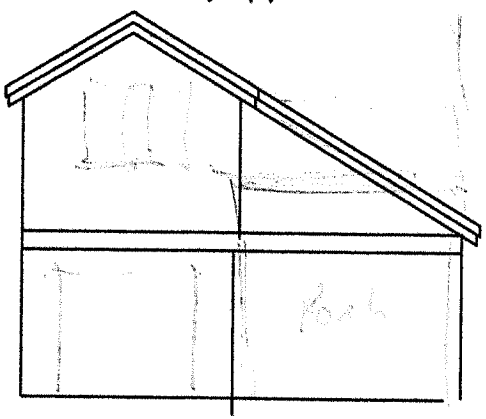

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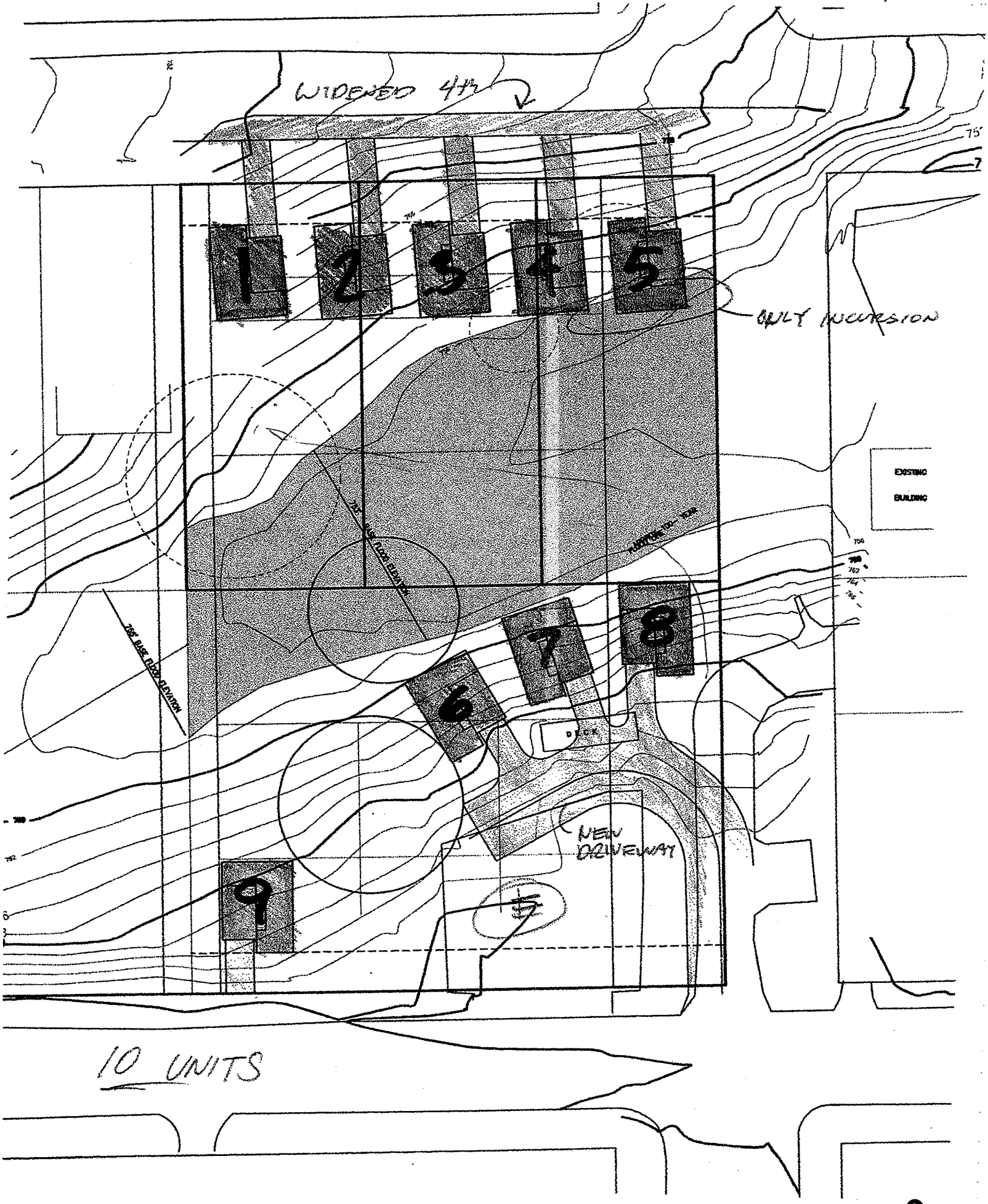
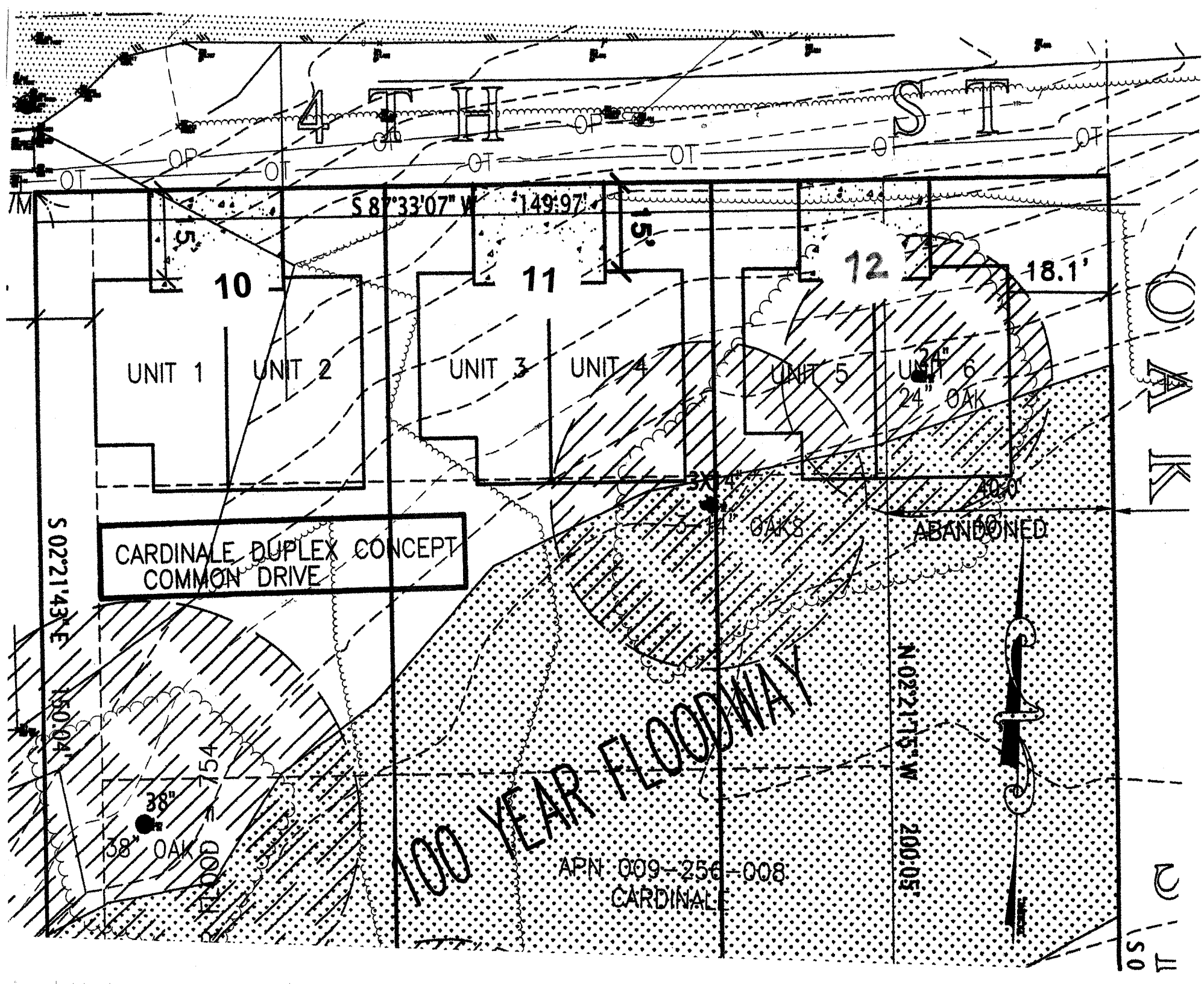

WIDENED 4th
1
2
3
4
5
CULT INCURSION
EXISTING BUILDING
756 BASE FLOOD ELEVATION
6
7
8
9
DECK
NEW DRIVEWAY
10 UNITS


4TH ST
OAK
S 87°33'07" W 149.97'
5'
5'
10
11
12
18.1'
UNIT 1
UNIT 2
UNIT 3
UNIT 4
UNIT 5
UNIT 6
24" OAK
3X 4"
OAKS
40.0'
ABANDONED
CARDINALE DUPLEX CONCEPT
COMMON DRIVE
S 02°21'43" E
150.04'
54'
38"
38" OAK
100 YEAR FLOODWAY
APN 009-256-008
CARDINALE
N 02°21'15" W
200.05'

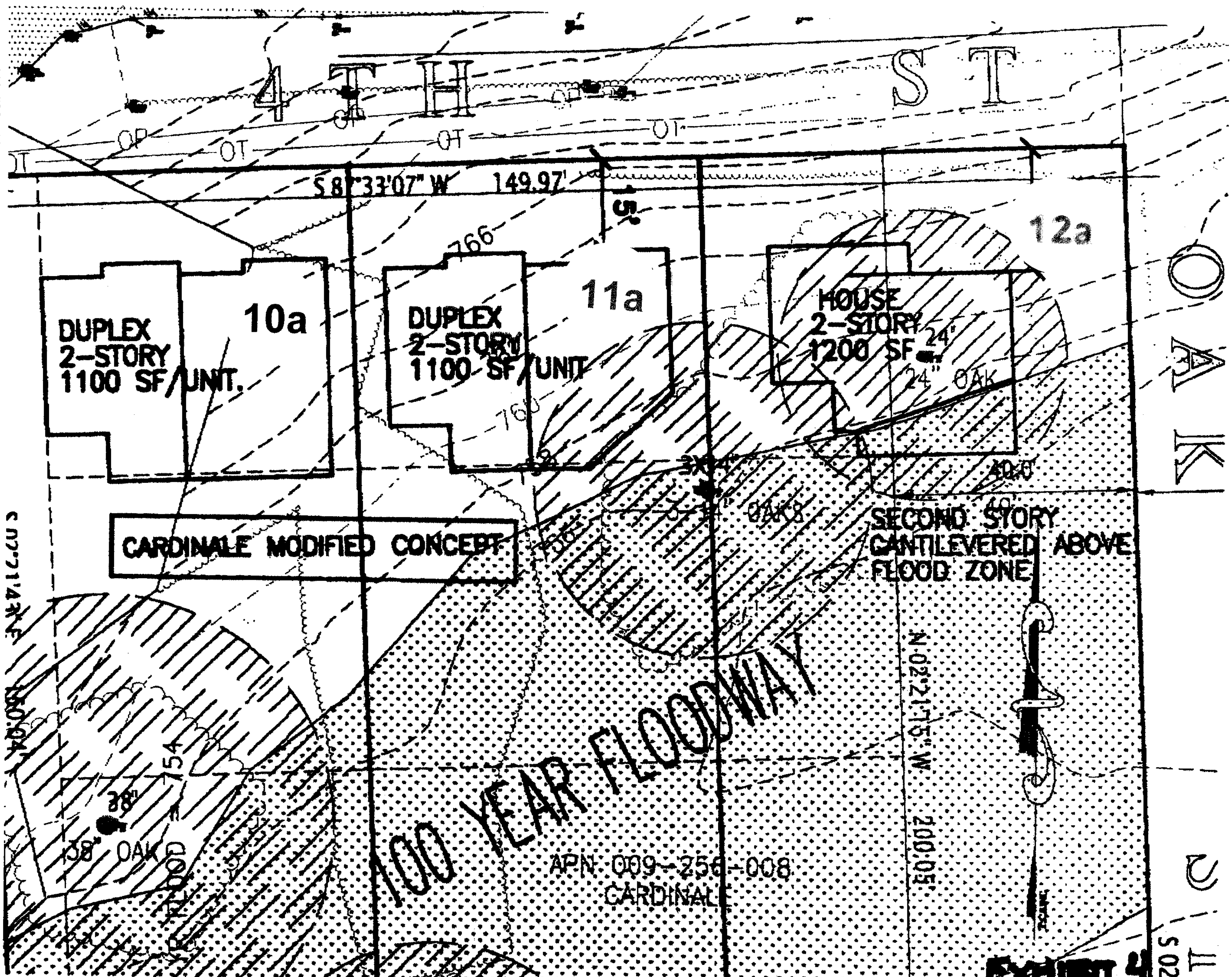
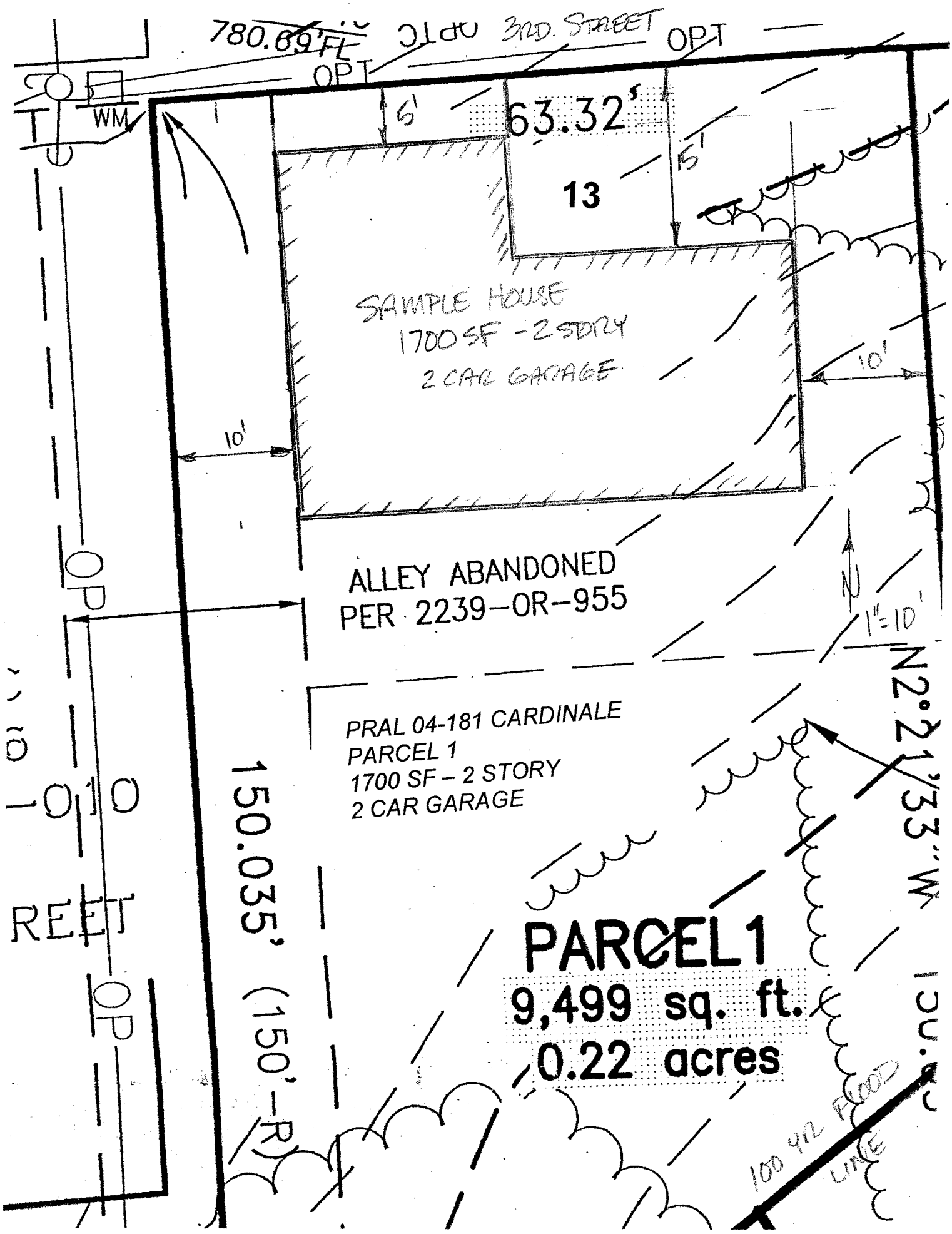
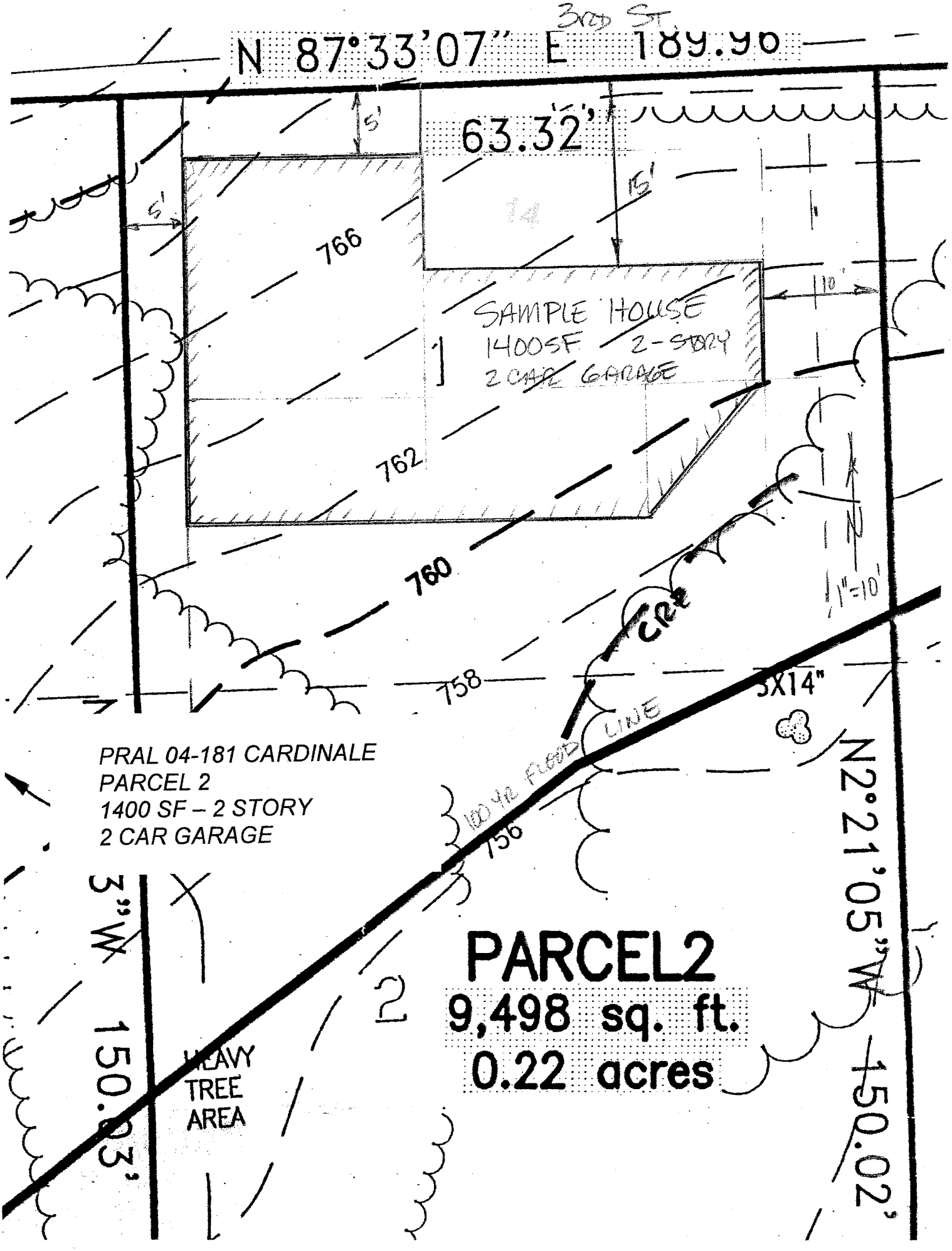
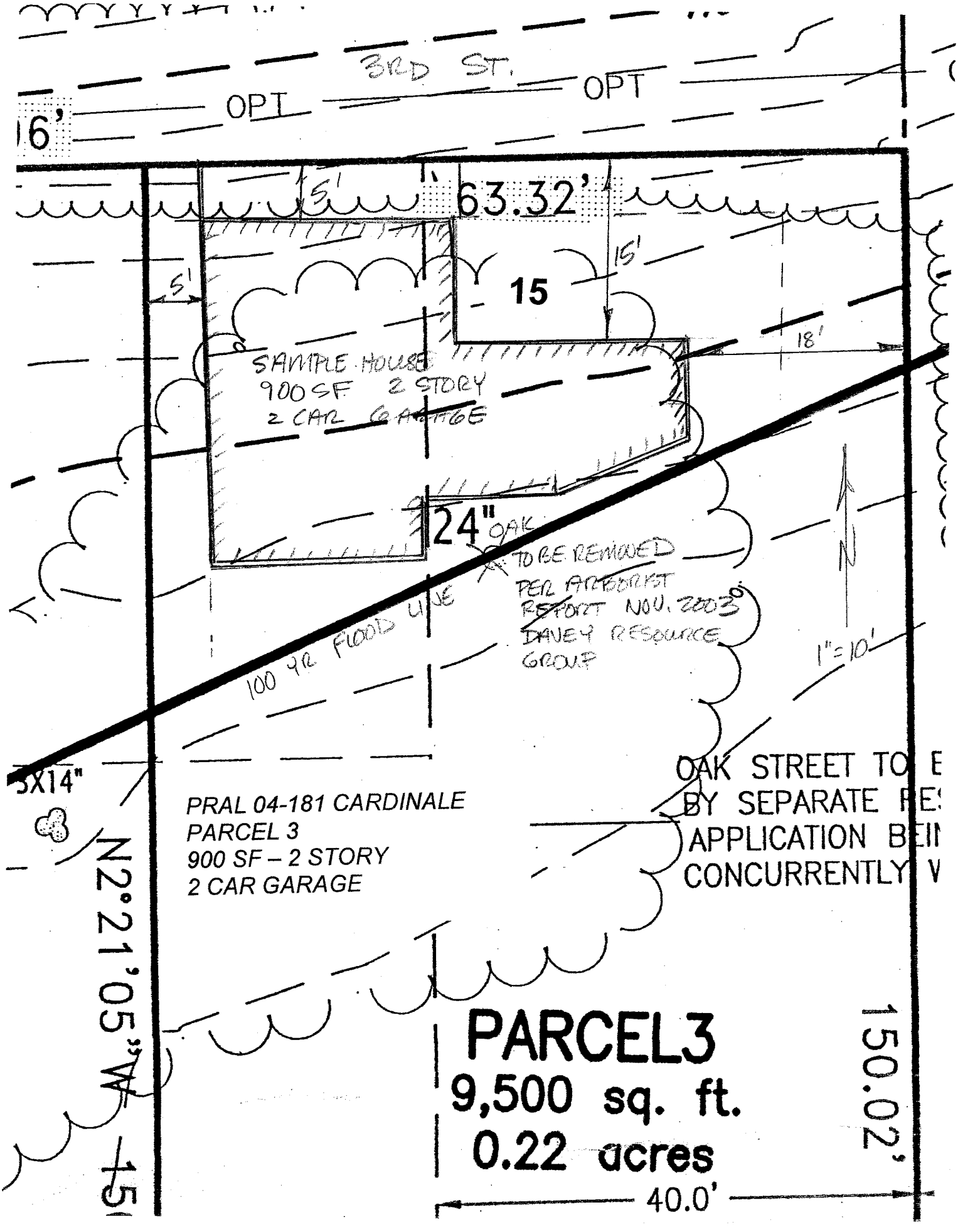
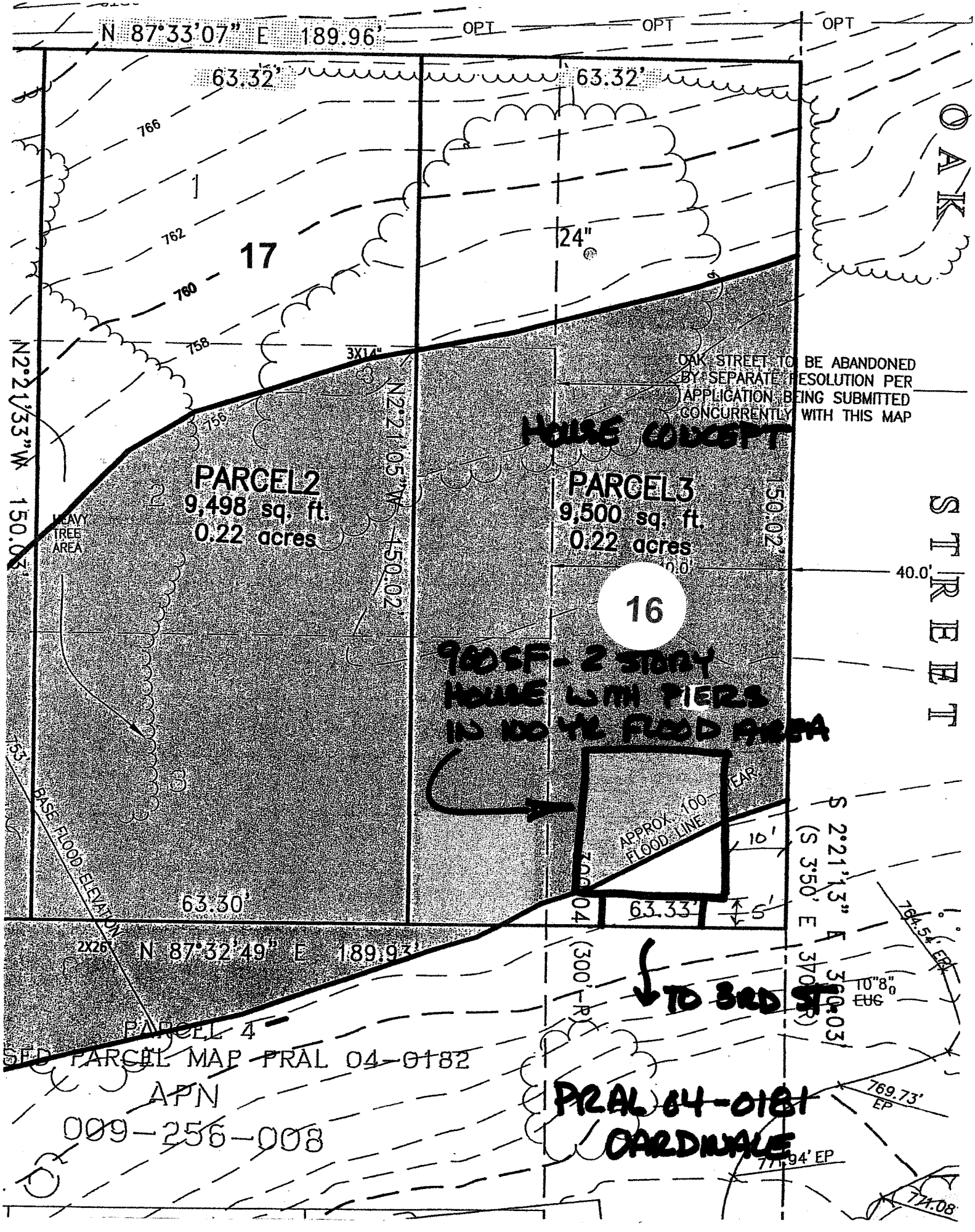

4TH ST
OAK ST
S 87°33'07" W 149.97'
5'
10a
DUPLEX
2-STORY
1100 SF/UNIT.
11a
DUPLEX
2-STORY
1100 SF/UNIT
12a
HOUSE
2-STORY
1200 SF
24" OAK
CARDINALE MODIFIED CONCEPT
SECOND STORY
CANTILEVERED ABOVE
FLOOD ZONE
100 YEAR FLOODWAY
APN 009-256-008
CARDINALE
N 02°21'15" W 200.05'
38" OAK
766
760
754

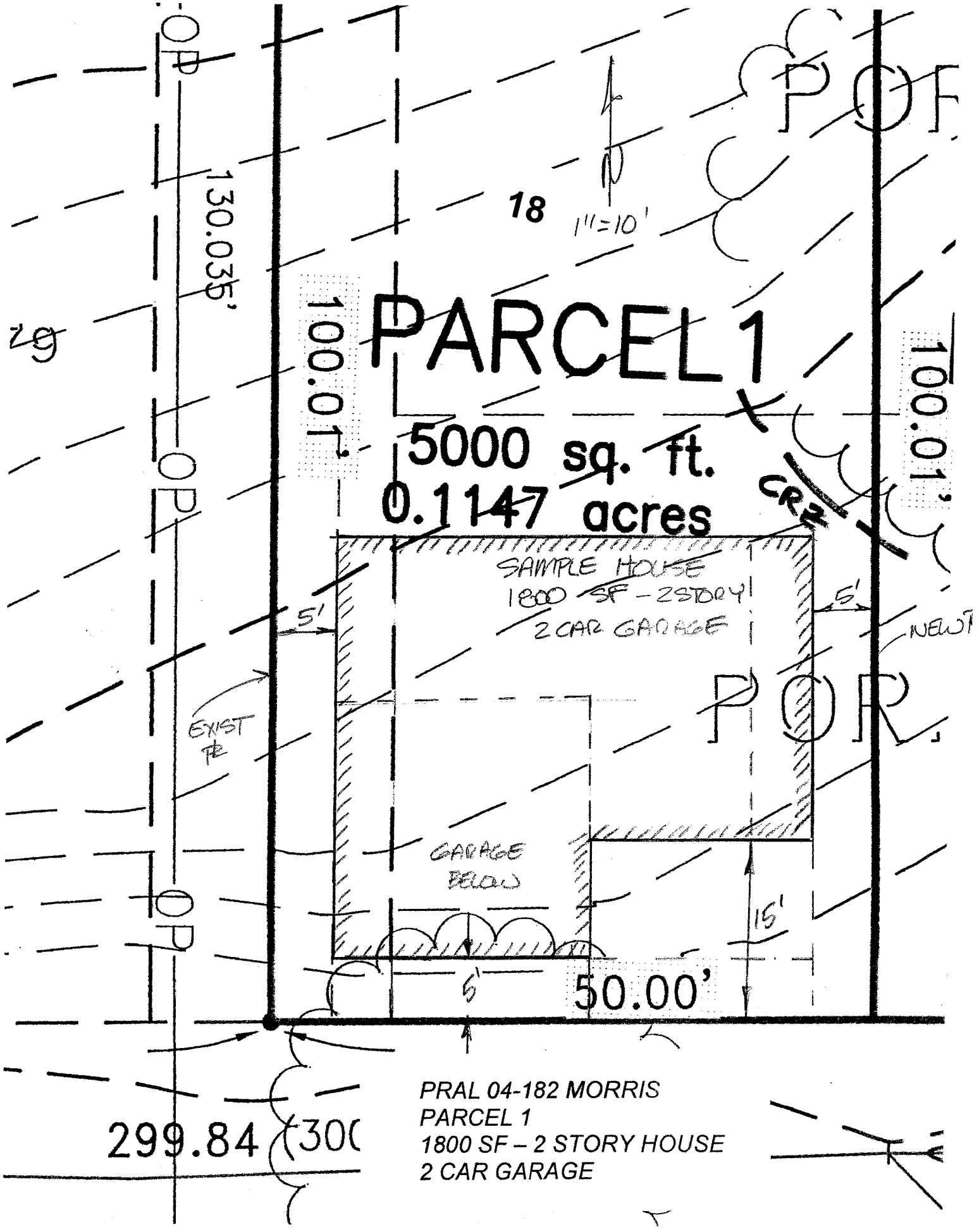
Exhibit 4


780.69'FL
OPT
3RD STREET
OPT
T
WM
5'
63.32'
15'
13
SAMPLE HOUSE
1700 SF - 2 STORY
2 CAR GARAGE
10'
10'
OP
ALLEY ABANDONED
PER 2239-OR-955
N
1"=10'
PRAL 04-181 CARDINALE
PARCEL 1
1700 SF - 2 STORY
2 CAR GARAGE
150.035' (150'-R)
N2°21'33"W
REET
OP
PARCEL 1
9,499 sq. ft.
0.22 acres
100 YR FLOOD
LINE

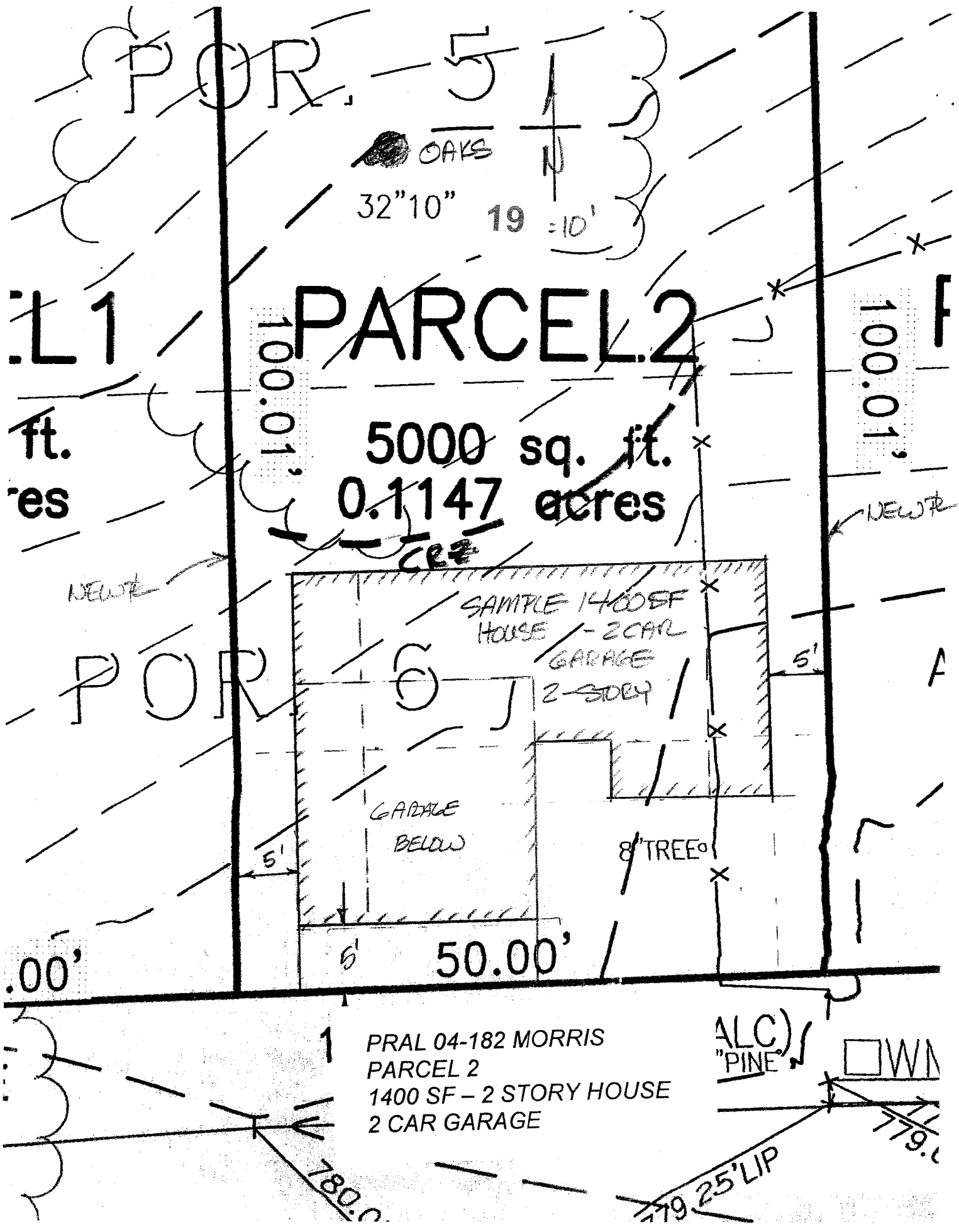

N 87°33'07" E 189.90
300 ST
63.32'
5'
15'
766
762
760
758
SAMPLE HOUSE
1400SF 2-STORY
2 CAR GARAGE
10'
1"=10'
CR2
3X14"
100 YR FLOOD LINE
756
PRAL 04-181 CARDINALE
PARCEL 2
1400 SF – 2 STORY
2 CAR GARAGE
PARCEL2
9,498 sq. ft.
0.22 acres
HEAVY TREE AREA
N2°21'05"W 150.02'
S3°W 150.03'

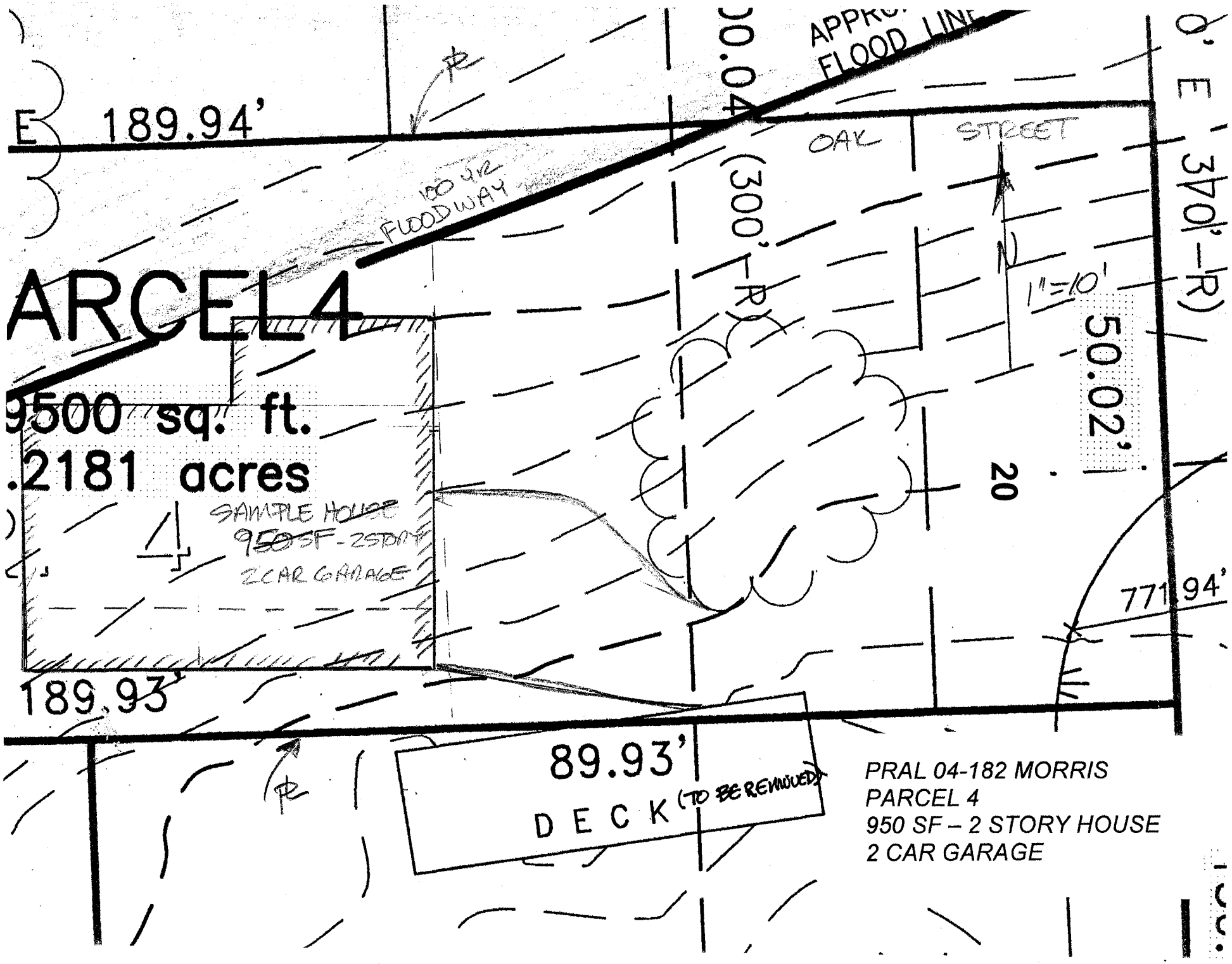

3RD ST.
OPT
OPT
16'
63.32'
15'
5'
15
15'
18'
SAMPLE HOUSE
900 SF 2 STORY
2 CAR GARAGE
24" OAK
TO BE REMOVED
PER ARBORIST
REPORT NOV. 2003
DAVEY RESOURCE
GROUP
100 YR FLOOD LINE
1"=10'
3X14"
PRAL 04-181 CARDINALE
PARCEL 3
900 SF – 2 STORY
2 CAR GARAGE
OAK STREET TO E
BY SEPARATE RE
APPLICATION BEI
CONCURRENTLY W
N2°21'05"W 151
PARCEL3
9,500 sq. ft.
0.22 acres
150.02'
40.0'


N 87°33'07" E 189.96'
OPT
OPT
OPT
63.32'
63.32'
OAK STREET
766
762
760
758
17
24"
3X14"
OAK STREET TO BE ABANDONED BY SEPARATE RESOLUTION PER APPLICATION BEING SUBMITTED CONCURRENTLY WITH THIS MAP
HOUSE CONCEPT
N2°21'33"W 150.02'
N2°21'05"W 150.02'
PARCEL2
9,498 sq. ft.
0.22 acres
PARCEL3
9,500 sq. ft.
0.22 acres
150.02'
40.0'
HEAVY TREE AREA
16
980SF - 2 STORY HOUSE WITH PIERS IN 100 YR FLOOD AREA
APPROX. 100-YEAR FLOOD LINE
10'
5'
63.33'
63.30'
S 2°21'13" E 370.03' (S 3°50' E 370.0' R)
764.54' EP
10"8" EUG
TO 3RD ST
(300' R)
N 87°32'49" E 189.93'
2X26
BASE FLOOD ELEVATION
PARCEL 4
PARCEL MAP PRAL 04-0182
APN
009-256-008
PRAL 04-0181
ORDINANCE
769.73' EP
771.94' EP
771.08



PRAL 04-182 MORRIS
PARCEL 1
1800 SF – 2 STORY HOUSE
2 CAR GARAGE


POR. 5
OAKS
32"10"
19
:10'
:L1
PARCEL 2
100.01'
ft.
es
5000 sq. ft.
0.1147 acres
NEW FR
NEW FR
SAMPLE 1400SF
HOUSE - 2CAR
GARAGE
2-STORY
5'
POR. 6
GARAGE
BELOW
8"TREE
5'
6'
50.00'
.00'
1
PRAL 04-182 MORRIS
PARCEL 2
1400 SF – 2 STORY HOUSE
2 CAR GARAGE
ALC)
"PINE"
WA
780.0
25'LIP
79.



PRAL 04-182 MORRIS
PARCEL 4
950 SF – 2 STORY HOUSE
2 CAR GARAGE

DAVEY
RESOURCE GROUP
A Division of The Davey Tree Expert Company

Corporate Headquarters
1500 North Mantua Street
P.O. Box 5193
Kent, Ohio 44240-5193
330•673•9511
Toll Free 1•800•445•TREE
FAX: 330•673•5408

2615 S. Vasco Road
Livermore, CA 94550
925•371•2022
Toll Free 1•800•966•2021
FAX: 925•371•6011

6824 Aldea Avenue
Van Nuys, CA 91406
818•705•8122
FAX: 818•705•1913

1034 W. Arrow Highway
Suite D188
San Dimas, CA 91773
Toll Free 1•800•648•7337
FAX: 909•592•2165

713 West Elwood Drive
Boise, Idaho 83706
208•338•0920
FAX: 208•338•0496

INSPECTION OF OAKS ON VACANT PARCEL OF LAND APN 009-256-008 IN THE CITY OF PASO ROBLES

For

Dick Morris
Paso Robles, California

Prepared for:

Dick Morris, Developer
(ReMax) 711 12th Street
Paso Robles, Ca. 93446

And

John McCarthy, Civil Engineer
McCarthy Engineering
737 Orchard Drive
Paso Robles, Ca 93446

Prepared by:

Davey Resource Group
Jim Lewis, Consulting Arborist
4580 Coachman Way
Orcutt, Ca. 93455
November 10, 2003

Attachment 4
Jim Lewis Arborist Report dated 11/10/03
(OTR 05-008)

TABLE OF CONTENTS

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Conclusion	4
Recommendations	5
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The purpose of this report is to inspect the Oaks on the vacant parcel of land (APN 009-256-008) located at the corner Oak street and 3rd Ave., (Bounded on the North by 4th Ave and the South by 3rd Ave.) The intent of the inspection is to conclude what is best for the Oaks in regards to the City of Paso Robles' "Oak Tree Preservation Plan" and how the Oaks should be dealt with during the development of the parcel for the betterment of public interest and welfare, and to meet the needs of the Preservation plan.

OBSERVATIONS

Site Description

In general, the parcel length runs North and South, and the width, East and West. The south end of the property is sloping with a North aspect. The North end of the property is also sloping but with a South aspect. The center of the property is the low area bounded by the North and South slopes. This low area is considered the flood zone running East to West beginning and continuing beyond the parcels East and West boundaries.

It appears that the property, as a vacant lot, has been used, in the past, as a "playground" by the local community. There are signs of injury to some of the Oaks as a result of this unauthorized use, signs nailed to trees, broken limbs, debris (tires, stove tops, wood, fencing) dumped near the base of a couple of the Oaks.

There are many volunteer Oak seedlings near and around the various Oaks on the parcel of land.

The Oaks

There are a total of five Oaks on the parcel that fall under the city of Paso Robles' Oak Tree Preservation Plan. Two Blue Oaks, two Coast Live Oaks, one Valley Oak. The trees are numbered as indicated on the attached map.

D - Coast Live Oak (Quercus agrifolia)
C - Valley Oak (Quercus lobata)
A - Blue Oak (Quercus douglasi)
B - Blue Oak (Quercus douglasi)

After close inspection of the site, both on September 15, 2003 and again on November 6th, 2003, I came to the following conclusion regarding the state of health and vigor of the five Oaks on site. With the exception of one Oak, the health of the other Oaks are in varying stages of decline, ranging from 50% to 90% decline.

Tree D-(Quercus lobata) 2X stem, 26" DBH each, 60' ht., located in the center of the property in the flood zone (see attached map). I found this tree to be in decline. I observed that rot and decay have found their way into many of the tree's major lateral branches. There is also evidence of mechanical injury caused by human activity in and around the tree. The overall condition of this tree is 40% to 50% in decline. Not proposed for removal

Tree C-(Quèrcus lobata) 38" DBH, 70' ht., located just above the flood zone on the North slope at the West boundary of the property, (see attached map). I found this tree to be in very heavy decline. I observed a great deal of rot and decay in all of the major laterals of the canopy. I also found there to be decay at the base of the tree creating a void completely through the base. I feel the overall condition of this tree to be 80% to 90% in decline. Not proposed for removal

Tree A-(Quercus douglasi) 24" DBH, 50' ht., located on the North slope, several feet above the flood zone on the East boundary (see attached map). I found this tree to be in decline, several of the major branches in the crown showing evidence of rot and decay. I also found signs of epicormic branching. I estimate this tree to be in approximately 50% to 60% decline.

Tree B-(Quercus douglasi) 3X stem 14", 12", 6" DBH, 30' ht., located on the North slope several feet above the flood zone and approximately 30' from the East property boundary. This tree is showing advanced stages of rot and decay, the major portion of its crown containing mostly dead branches. I estimate this tree to be approximately 70% in decline.

ANALYSIS and TESTING

Since no samples of rot and decay were collected at the site and forwarded to a testing laboratory for analysis, and since no tests with other instruments were administered, the specific type of decay cannot be specifically identified nor can the exact extent of decay be determined. All estimates of approximate % of decline and extent of decay were concluded from visual observation of % of dead lateral branches, smaller branches, leaves in the crown and the presence of decay on the boles. The per cent refers to the un-healthy portion of the tree.

DISCUSSION

From my observations, I feel that the history of use on this lot (human activity), the age of the trees, lack of professional care for the trees, all contribute to the present condition of health of the existing trees.

CONCLUSION

The general state of health of the trees on this parcel leads me to believe that with some of the trees there is no corrective pruning that can be done to improve the natural damage done to the trees in order to improve their long term health and vigor. There is one Oak I believe would benefit from corrective pruning to improve the structure and overall health of the tree.

RECOMMENDATIONS

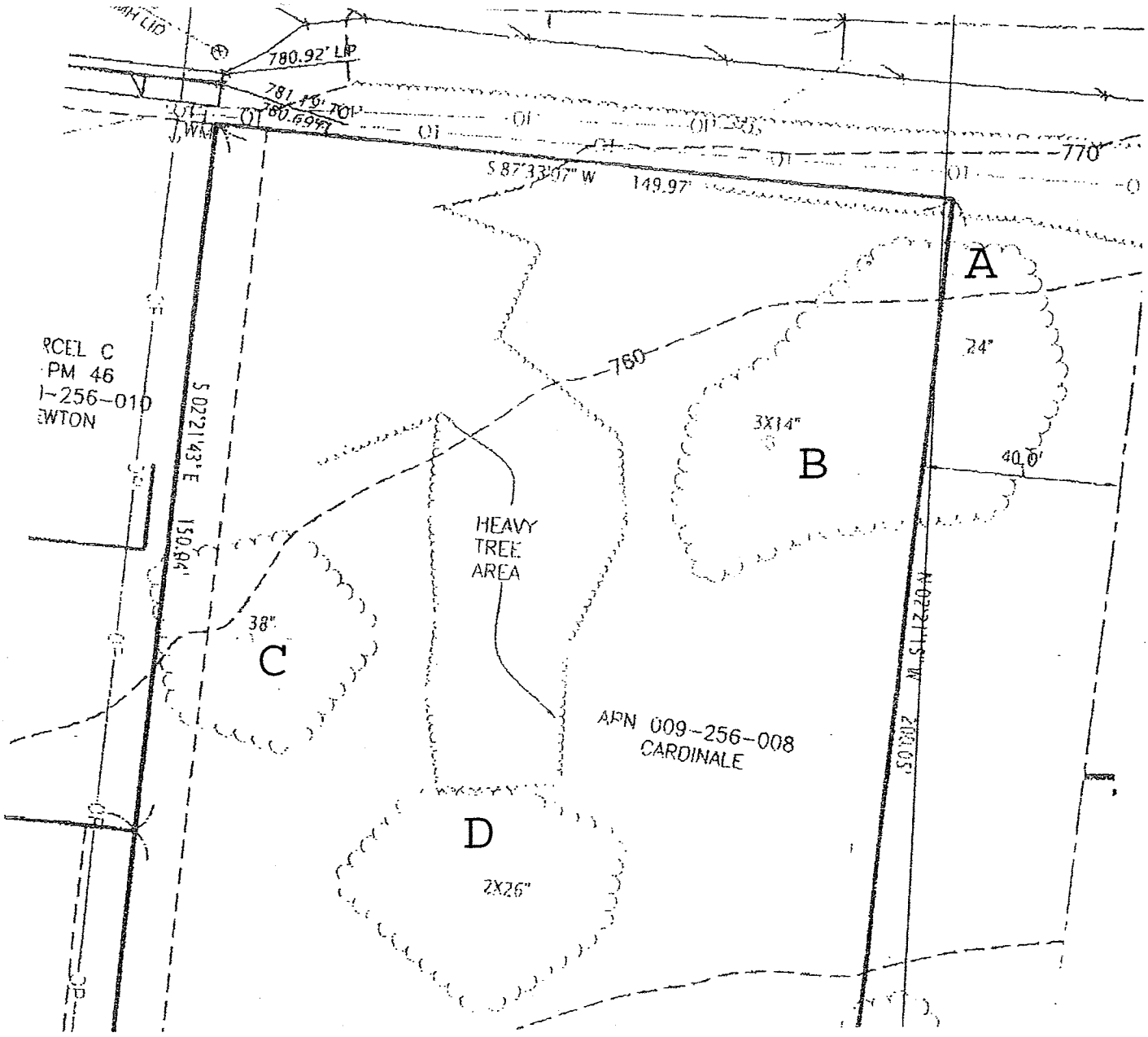
Tree D.. Since this tree is placed in a position so as not to impact or be impacted by the development of this parcel and though this tree is in decline, I suggest it remain in place as is and no pruning be done. To protect the critical root zone, I do recommend fencing be installed around this tree describing a 30' radius circle with the tree at the center of the circle. This tree would be a valuable seed source of volunteer seedlings in the future.

Tree C. This tree is in a stage of advanced decline and poses a hazard as it stands today. I recommend for the safety of people and structure, that this tree be removed before development begins. Applicants not proposing to remove at this time.

Tree A. This tree is in a moderate stage of decline, because of its location and health, it would pose a hazard to both people and structure and pruning would not enhance its' longevity, I therefore recommend this tree be removed.

Tree B. This tree is in an advanced stage of decline. Because of its' location it would pose a hazard to both people and structure. I recommend this tree be removed.

I recommend that all tree work be done under the supervision of an ISA Certified Arborist and that all work conform to ISA standards.


780.92' LP
781.10' TOP
780.69M
S 87°33'07" W 149.97'
770
760
A
B
C
D
24"
3X14"
40.0'
38"
2X26"
HEAVY TREE AREA
PCEL C
PM 46
1-256-010
EWTON
S 02°12'53" E 150.84'
N 02°11'53" W 200.05'
APN 009-256-008
CARDINALE

OAK TREE IMPACT EVALUATION REPORT

Addendum to Report of November 10, 2003
For Dick Morris & Joe Cardinale
711 Twelfth Street
Paso Robles, Ca 93446 APN # 009-256-008

Certification of Performance

I, Jim Lewis, certify:

- **That I have personally inspected the trees and property referred to in this report, and have stated my findings accurately. The extent of the evaluation and appraisal is stated in the attached report and the terms and conditions:**
- **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, and are based on current scientific procedures and facts;**
- **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 subsequent events;**
- **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 may have been indicated within the report.**

I further certify that I am an International Society of Arboriculture Certified Arborist # 26651 Professional Member and that I hold a Bachelor of Science degree in Forestry from the University of Minnesota.

Signed Jim Lewis

Date 12/31/05

ADDENDUM TO ORIGINAL ARBORIST REPORT OF NOVEMBER 10, 2003

TITLE:

INSPECTION OF OAKS ON VACANT PARCEL OF LAND
APN 009-256-008 IN THE CITY OF PASO ROBLES

PREPARED FOR:

Dick Morris and Joe Cardinale
711 12th Street
Paso Robles, Ca. 93446

PREPARED BY:

Jim Lewis, Project Coordinator for the Davey Resource Group.
Bachelor of Science Degree, Forest Resources and Development
Professional Member of ISA, #26651, Expiration 12/31/2006.
Working under City Business License of Davey Resource group.
December 31, 2005

PURPOSE:

- **To update report of Nov. 10, 2003, in order to provide further information evaluating the present condition of tree A and B as referenced on the topographical map in the original report of November 10, 2003.**
- **To co-inside with the newly adopted Resolution Number 50-120 of June 7, 2005.**

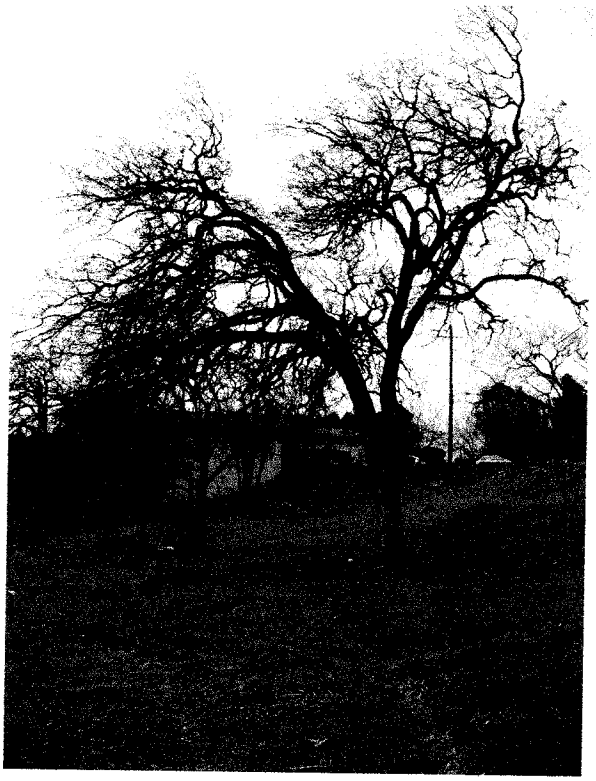
OAK TREE IMPACT EVALUATION REPORT

THE TREES

There are several Oaks on this parcel, I have been asked to evaluate only two of them on the North portion of the parcel. These two Oaks are referenced in the original report on the topographical map of November 10, 2003 as Tree "A" and Tree "B". The following is a description of those two Oaks.

TREE "A"

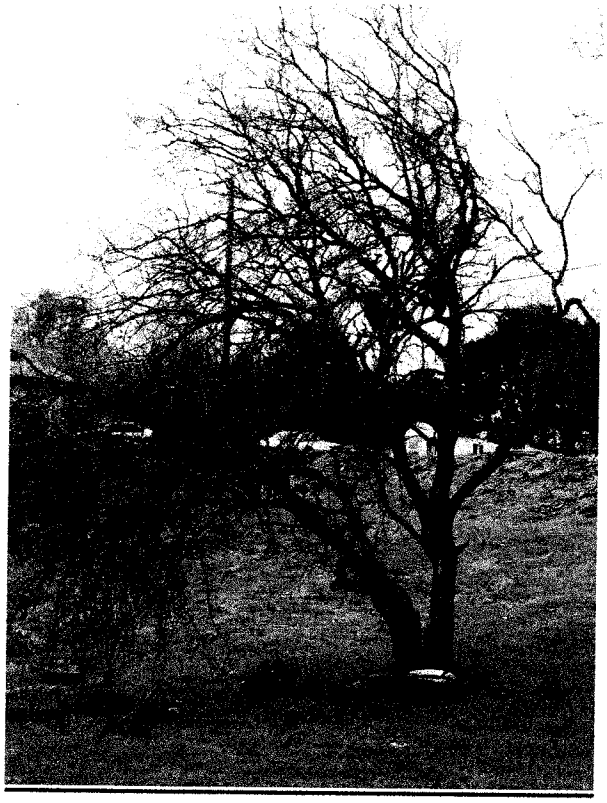
Species; Quercus douglasii (Blue Oak).
DBH; 24 inches.
Height; 50 feet.
Crown Spread; 45 feet in diameter.
CRZ; 24 feet radius.
Health; Fair to poor.
Condition; In decline.
Estimated Safe Useful Life Expectancy; 10 to 30 years.
Aesthetic Quality; Subjective.
DISPOSITION: To Be Removed



OAK TREE IMPACT EVALUATION REPORT

THE TREES

Species; Quercus douglasii (Blue Oak).
DBH; 14 inches, 12 inches, 6 inches
Height; 30 feet.
Crown Spread; 22 feet in diameter.
CRZ; 24 feet radius.
Health; Fair to poor.
Condition; In decline.
Estimated Safe Useful Life Expectancy; 10 to 30 years
Aesthetic Quality; Subjective.
DISPOSITION: To Be Removed



OAK TREE IMPACT EVALUATION REPORT

TREE INJURIES

A tree does not have the capabilities to heal itself after being wounded or damaged. What it can do is seal itself as a defense mechanism however, not every wound in a tree is sealable. When a tree is pruned properly, a callous material is produced by the tree sealing the immediate area between the bark and the exposed woody material. In addition, a sealing mechanism occurs inside the wound preventing pathogens from entering through the wound and eventually spreading throughout larger sections of the tree. The injuring of a tree through improper pruning techniques, breaking of limbs by strong winds, mechanical damage by vehicles, fire damage, nails pounded into the tree etc...all have a common theme, they are exposing the inner woody part of the tree to pathogens by separating or removing the protective skin (the Bark), from the woody material.

OAK TREE IMPACT EVALUATION REPORT

TREE INJURIES

The pictures on page four are examples of various types of damage done to the trees over the years. If you look closely, you will find that in some of the cases the tree made an attempt to seal itself from its injuries. There is a tan colored callous material formed around the wound. In some of the pictures you will see that the tree was unable to protect itself with that callous material. These unprotected areas are where the various pathogens were able to enter the tree.

TREE HEALTH, THE CROWN OF "A"

Specifically assessing tree "A", based on ISA criteria regarding the percent of live portions of the crown of tree "A" compared to the live portions of the crown of what a healthy tree should be, I estimate that there is approximately 40% live portion left in this tree when compared to that of a healthy tree of the same size and species.

Most of the live portions of the crown can be seen in the very upper portion of the tree. In the picture to the right, the very fine, long, thin stems in the upper crown are the stems still producing vegetative buds. In the lower portion of the crown, the thicker branches are not producing much in the way of vegetative buds. In many of these thicker branches, one can see where the rot and decay has set in. In a normally healthy tree, these branches should be producing vegetative buds, these are not. A major scaffolding branch was removed 2-3 yrs ago, it shows no signs of sealing itself. Signs of sealing should be seen within the first year.

OAK TREE IMPACT EVALUATION REPORT

TREE HEALTH, THE TRUNK OF "A"

As mentioned earlier, a tree has the ability to seal itself in response to some injuries. From a distance the trunk of tree"A" appears to be sound and healthy. Taking a closer look, it becomes evident that there are serious problems associated with this trees vigor. There are two prominent injuries to the bole (trunk) of this tree, pictures 1 & 2. Both appear to have been caused mechanically, something or somebody striking the tree in the past.

1.

2.

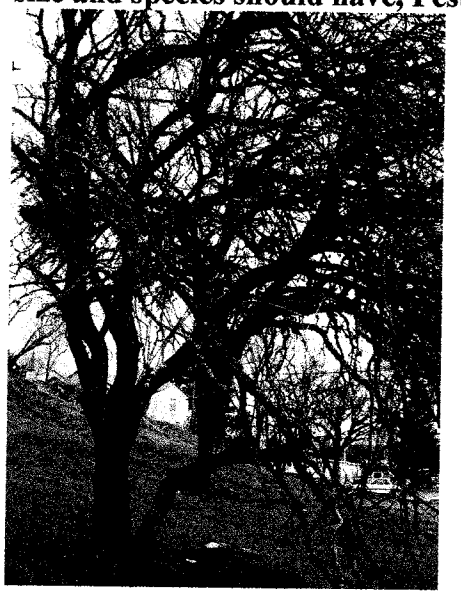
3.

The injury in picture number three appears to be a result of the loss of a branch. The important issue regarding all three injuries is that none of them have been able to seal themselves. The wound in picture 1 is to a greater extent than meets the eye. Upon examining the wound, I found that the bark has separated from the tree several inches in all directions beyond what is visible to the eye. There is evidence of rodent activity, nesting in the separated portion of the bark. With the tree unable to seal this wound, the damage will only worsen. The wound seen in picture two is similar to that of picture 1. This wound is at ground level, probably mechanical in nature. Again, the tree has not been able to seal itself. The damage will only increase with time. There is evidence of insect activity associated with this wound. In picture three, there is a small wound, which is not sealing; there is evidence of weeping with fluid oozing from the break in the bark. This is another entry point for pathogens.

OAK TREE IMPACT EVALUATION REPORT

TREE HEALTH, THE CROWN OF "B"

The crown of this tree is producing less vegetative material than that of tree "A'. Comparing the live portion of the crown in this tree to what a healthy tree of same size and species should have, I estimate that this crown is approximately 30% live.



This tree is in a much Further stage of decline than tree "A".

Most of the live portions of the crown can be seen in the very upper portion of the tree, the very fine, long, thin stems in the upper crown are the stems still producing vegetative buds. In the lower portion of the crown, the thicker branches are not producing much in the way of vegetative buds. In many of these thicker branches, one can see where the rot and decay has set in. In a normally healthy tree these branches should be producing vegetative buds; again, as with tree "A", these are not. It was also noted that in the lower portion of the crown there is evidence of improper pruning. The end result of this pruning is shown in the picture below. There are two pruning locations in this picture. The upper cut shows signs of the tree attempting to seal itself, evidenced by the tan colored callous material surrounding the pruning cut. It almost sealed it completely. The lower cut seen in the picture did not seal at all. Both of these wounds are entry points for pathogens. Another issue to consider with the upper pruning cut is the response by the tree. Though the wound began to seal itself, it also produced "water sprouts". Those small branches emanating from around the pruning cut will eventually increase in size but because of the nature of water sprouts, they will produce attachment to the parent limb. They will be more susceptible to failure at the attachment point.

OAK TREE IMPACT EVALUATION REPORT

TREE HEALTH, THE TRUNK OF "B"

Based on previous discussions regarding wounds to a tree, it is obvious at first glance that there are issues with this tree. There are several locations on the trunk of this tree that show evidence of previous mechanical damage and the inability of the tree to completely seal itself because of the nature of the wounds.

1. 2. 3,

In all three of these cases above, the tree was able to seal itself to some degree. Picture no. 1 shows the greatest amount of sealing, 100%, picture no. 2 about 75 %, and picture no.3 approximately 50%. There appears to be some secondary wounding in pictures 1 and 2. Someone had pounded a nail into the tree at these locations. Again these are entry points for pathogens to enter and do affect the long term health of the tree. Again nails pounded into the trees as shown in the pictures Below.

OAK TREE IMPACT EVALUATION REPORT

TREE HEALTH, THE TRUNK OF "B"

Other wounds found on the trunk of this tree are shown in the pictures below. These pictures further illustrate the abuse and damage done to this particular tree.

1.

2.

3.

Picture 1 above is another example of mechanical injury and the tree being unable to seal itself. There are all sorts of activity associated with this wound. It is an environment suited for various insects and rodents, another entry point for various pathogens.

Picture 2 above is showing "included bark" between the three major stems of the tree. Included bark is a situation where bark is actually imbedded into the woody material where the two stems meet. This causes a week point in the tree at the juncture and is prone to failure.

Picture 3 is showing a location where a limb was pruned and had sealed, however, because the pruning cut was made parallel to the horizon, water was able to accumulate in the wound and do further damage. Again this provides one more entry point for the various pathogens.

OAK TREE IMPACT EVALUATION REPORT

TREE HEALTH, LAND USE

The following are pictures illustrating how this parcel has been abused in the past.

The whole area is scattered with various types of debris, old tires, shopping carts, auto parts, household items all dumped near or around the base of these trees. Judging by the debris dumped in and around the trees on this parcel indicates to me that there is little concern shown for the condition of these trees.

CONCLUSION

It is difficult to determine the specific cause of the decline of the trees on this parcel. I believe there could be various contributing factors to the decline of the trees that would include but not be limited to the possibility of runoff from the adjacent parking lot and streets. Though the above mentioned reasons for the possible decline of the trees may have played a part, I feel that the main cause for the decline is the abuse these trees received over their life time. There is so much evidence of the trees being wounded, not sealing, allowing pathogens to enter the tree. The result being the large amount of visible rot found in the crown of both trees.

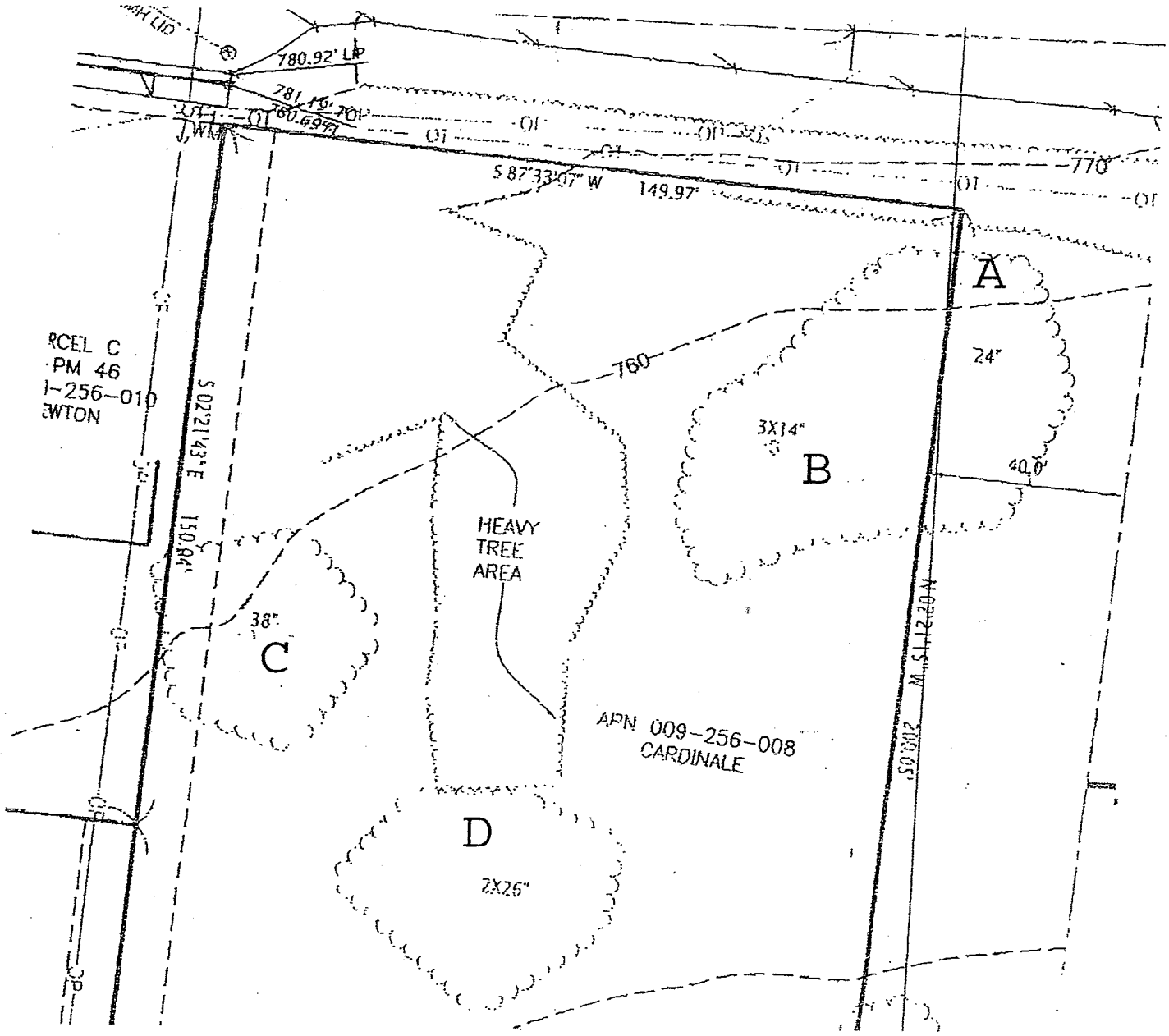
Even with the most dedicated care, I do not believe these trees could recover from the results of the past damage. The decay has set in and will continue to eat away at the live portions of the tree faster than the tree could put on new growth.

RECOMMENDATIONS

Much of the damage suffered by these trees over their life time appears to be mechanical in nature specifically to the boles of the trees in question. Many of the wounds have not sealed properly allowing pathogens to enter the tree and do damage. When a tree is initially injured such as separation of the bark from the woody material there are measure that can be taken to help minimize the damage from the injury, however it must be done immediately after the injury occurred. With the injuries found on these trees it is apparent nothing was done.

Much of the live vegetative buds are found on the very outside of the upper canopy of these trees, although there is some foliage during the growing season, the overall appearance compared with similar species is noticeably thin. It is normal for trees to shed interior, smaller limbs due to competition with the expanding larger limbs which extend out in order to gain the best advantage of the available sunlight. It is not normal for a tree to exhibit dieback in limb material that is currently situated in a position to receive ample sunlight, which is the case for the two trees that are the subject of this report.

It is my professional opinion that these two trees, the subject of this report, are beyond correction and would be good removals and an opportunity for the city to exercise their option to have these trees replaced in accordance with the City of Paso Robles' Oak Tree Preservation Plan, Part 10.01.050 section E. "E. Conditions, including replacement requirements: In conjunction with the intended decision made on an application for a permit, the director shall attach or recommend for city council consideration reasonable conditions to ensure compliance with the stated purposes of this chapter, and a condition requiring replacement oaks being equivalent to twenty five percent of the diameter of the removed tree(s). A minimum of two twenty four inch box, one and one half inch minimum trunk caliper measurement trees shall be required for each oak tree removed."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Tree declines: four concepts of causality

W.A. Sinclair and G.W. Hudler

Abstract: The term decline refers to premature progressive loss of vigor and health, not necessarily to any specific disease or disorder. Any case of decline can be explained on one of four bases: **1.** A tree may decline primarily as the result of chronic irritation by a single agent. **2.** A tree may decline because of damage by secondary agents after an injurious event such as defoliation or major wounding. The same agents would not cause decline in an uninjured tree, and the injury alone would not cause decline. **3.** Chronic irritation by one or more agents may diminish the tolerance or resistance of a tree to another agent that then incites decline. Various factors including those that predisposed the tree and incited decline may then contribute to further decline. **4.** Trees of similar age growing in groups tend to display group behavior including premature senescence (synchronous cohort senescence) in response to stress.

Concern about decline of shade and forest trees waxes and wanes in relation to the visibility of damage caused by pests, pathogens and environmental insults. Awareness of decline heightened in recent years as people became aware of the widespread adverse effects—both real and hypothetical—of polluted air and atmospheric deposition (4, 24, 31, 37), repeated wounding (33), cryptic pathogens (23), defoliating insects (14, 15, 38), and stressful urban environments (2, 20, 30, 40). Popular reports about tree decline, however, often promote confusion by: a) presenting as fact a hypothesis about the cause of decline, b) oversimplifying the interaction of biotic and abiotic causal factors, c) tying the concept of decline to one cause (such as acidic deposition), or d) disregarding the fact that decline in the sense of failing health is an inevitable phase of a tree's life. The purpose of this paper is to review the application of the term decline and to present a set of four alternative concepts that apply in different circumstances to the causation of premature decline. For additional discussion of decline concepts, readers should consult the review by Manion (22).

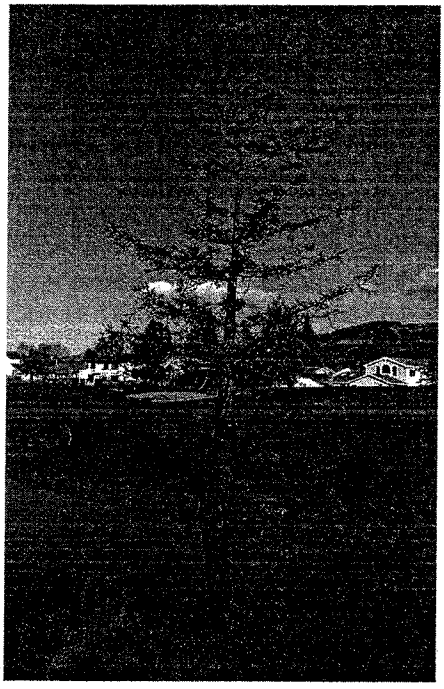
Most trees, in common with other life forms, pass through a period of decline—senescence—before death. Thus decline in one sense is a normal phenomenon. The only trees that escape decline are the few that die quickly after an injury or as the result of infection by a virulent pathogen. As commonly used and understood, however decline connotes premature progressive loss of health. It is the concept of premature debilitation that leads us to classify declines as a major category of tree diseases (12, 13, 21, 22).

The term decline does not necessarily connote disease of any specific nature or cause, however.

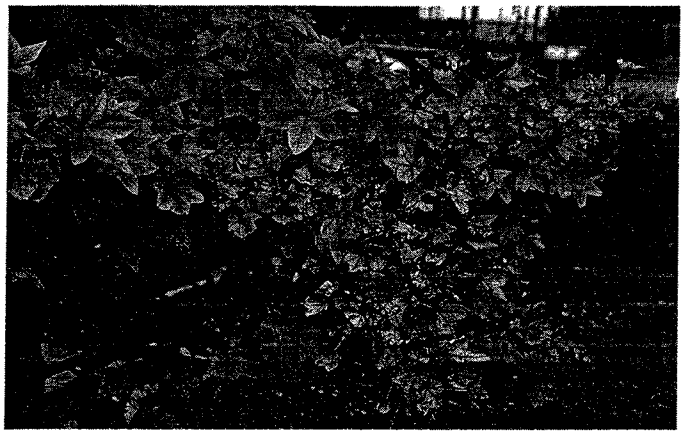
When we mention maple decline, oak decline, or ash decline, readers should understand that we are merely referring to diseases that are characterized by progressive debilitation, regardless of cause.

"Most trees, in common with other life forms, pass through a period of decline—senescence—before death."

Decline in this redwood is a result of a soil aeration deficit.



In order to understand decline, whatever its causes, one must recognize that normal trees generally interact with many biotic and abiotic environmental factors that are both favorable and unfavorable for growth and development. Tree growth and behavior may vary from site to site or fluctuate widely on a given site and still be judged normal for the conditions present. When because of stress from injury, infection, or environmental insult, the tree loses most of its ability to respond to favorable conditions, it also loses the ability to tolerate or resist the unfavorable ones and it declines. Stress may be caused by pathogens, by excess or insufficiency of abiotic environmental factors [water, minerals, sunlight, etc.] or by repetitive injuries.



Nutrient stress in this Liquidambar due to high soil Ph.

Armillaria root disease attacking this declining plum.

The term decline is often used when the cause of a progressive disorder is unknown. When a single agent or circumstance is found to cause decline consistently, a name for the disorder is usually coined and the disorder considered thereafter to be a discrete disease. Thus by default, decline appears in the names of disorders that are poorly understood or that are caused by multiple factors. For example, maple decline in popular use connotes deterioration that is at least partially unexplained. Maples in landscapes often decline because of girdling roots or infection by *Verticillium* and those in woodlots because of root damage by cattle or exposure [to sunlight] of residual trees after logging, but these disorders are usually held separate in our thinking.

Symptoms of decline include slow growth, sparse and/or undersized or distorted, often chlorotic leaves, browning of leaf margins, premature display of autumn drop; abnormally large crops of fruit ("distress crops"); diminished storage of food reserves, especially starch; and progressive or intermittent dieback of twigs and branches and eventually the entire tree. Adventitious sprouts often develop for a time along the trunks of trees that have sustained branch dieback.

Two general sequences of symptoms are recognized. If decline is incited by a damaging event such as root cutting or severe defoliation, buds and twigs may die as a shock response to the injury, and this dieback may precede foliar symptoms. If decline results from chronic stress, e.g., saline soil, water shortage, or systemic infection, foliar symptoms and slow growth are likely to precede dieback. The symptoms may progress steadily or intermittently until the tree dies or its condition becomes static. If symptoms become static for a long time, decline has ceased.

The potential reversibility of decline depends on its cause and on the condition of the tree. Decline caused by systemic infection is usually not reversible but that caused by abiotic stressing factors may be reversible if the stress is removed while the tree still has some resiliency.

Single versus multiple causes of decline

The list of causal factors includes insects especially defoliators and borers; fungi that attack roots, bark and sapwood; bacteria such as those associated with bacterial wetwood and bacterial leaf scorch; mollicutes such as the mycoplasmalike organisms involved in decline of ash trees; nematodes; viruses; water supply (too much or too little); asphyxiation of roots (as during flooding or around a gas leak); deicing salt, air pollutants (especially ozone); and site alterations. Even when a tree declines primarily as the result of a single disease or environmental factor, there are always secondary or contributing, causal factors. Often, however, decline is caused by several environmental and biotic factors acting in concert or in sequence. The key idea, whether we deal with one stressing factor or many, is that over periods of years these factors prevent normal growth and defensive processes, accelerate senescence, and hasten death.

Conceptual Explanations

Different conceptual schemes have been put forward to explain various declines, and each scheme seems applicable in particular circumstances. In the simplest scheme, decline is a progressing syndrome caused primarily by one factor. In a second scheme, a tree sustains a major shock such as defoliation that makes it abnormally sensitive to adverse environmental factors and abnormally susceptible to opportunistic pathogens and other pests. The secondary factors and opportunistic organisms may be the immediate causes of decline. In a third scheme, decline is explained as a three-phase process caused by the chronic effects of multiple adverse factors. One or more of these factors first weakens or predisposes the tree. Then other factors incite decline, and still others contribute to the impact of the inciting factor. The predisposing, inciting and contributing factors are interchangeable. A fourth scheme, advanced in recent years by vegetation ecologists, is applicable to the decline of trees growing in groups, usually in forests. In this scheme, trees develop and age together until new or preexisting site factors constrain their growth and eventually cause such stress that the trees senesce and

decline together. We will present examples that fit each scheme.

Decline caused primarily by perennial or continual irritation by one factor

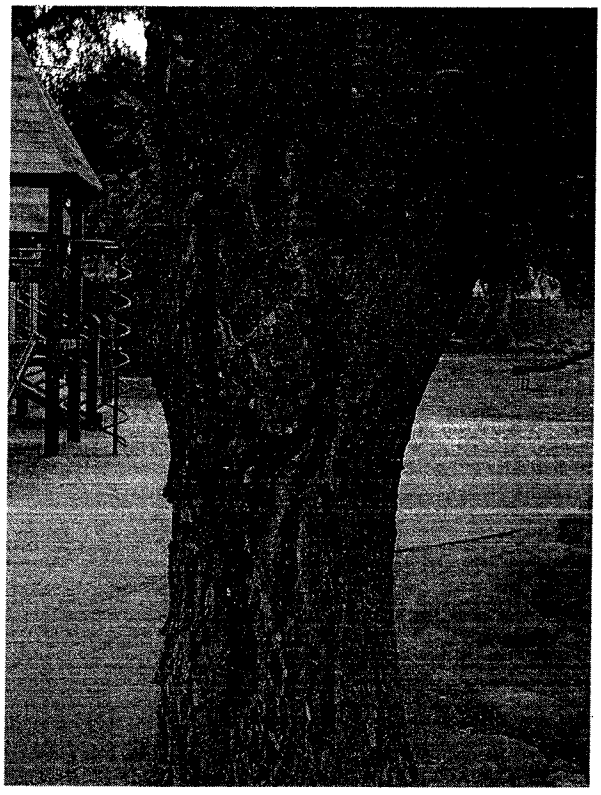
The factor may be a pathogen or a component of the abiotic environment. We will consider four examples. The first is decline of pin oaks due to inadequate uptake of iron. The principal symptoms are chlorosis and progressive dieback. If untreated, the tree slowly declines and dies (27). This disease is caused not by a pathogen but by an environmental insufficiency.

The second example is decline of sugar maple caused primarily by uptake of deicing salt. Sugar maple along roadsides in northeastern states and in Ontario began to decline during the 1950s and 1960s as the use of deicing salt increased. Evidence accumulated that the salt, although not the only stress-inducing factor, was primarily responsible for the decline (10, 42). In recent years, however, we don't hear much about salt as a cause of decline in sugar maple. One reason is that where once there were many sugar maples along the roadsides, now there are few. Those that were in position to take up large quantities of chloride and sodium ions from deicing salts are gone.

Third, air pollutants may also cause continual stress resulting in decline, provided that the plant is intrinsically sensitive to the pollutants. Some eastern white pines, for example, are highly sensitive to ozone and also to sulfur dioxide. If chronically exposed to these pollutants, the trees lose vigor, bear only one age-class of needles, and either turn yellow or show tip burn of needles. The yellowing and decline of white pines along the Blue Ridge Parkway in Virginia has been related to their sensitivity to ozone (1).

As a final example in this category, consider decline of white ash and red/green ash in central and eastern states. Although in some localities these ash species and other trees apparently decline because of stressful environment, much damage to the ash also occurs on sites where other trees appear normal and where ash formerly grew rapidly and to large sizes. Circumstantial evidence and some experimental data support the hypothesis that a microbial pathogen is primarily responsible. Declining ash in a region extending from the Great Plains to the Atlantic may be found infected by mycoplasmalike organisms (MLOs). These are submicroscopic prokaryotic organisms, lacking cell walls that infect the phloem of trees systemically and are transmitted by certain leafhoppers and other insects that feed by sucking phloem sap. Some ash trees tolerate MLO infection for many years, but others decline and die. Matteoni and Sinclair (23) have coined the name ash yellows for the mycoplasmal disease that debilitates ash trees.

Canker-causing pathogens commonly attack declining trees.

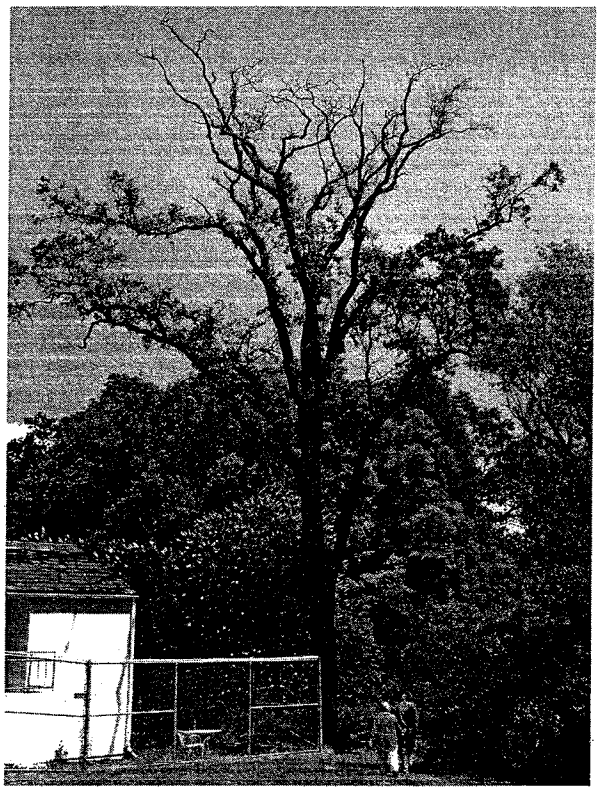


For each of the examples just cited, although one factor is primarily responsible for decline, additional factors undoubtedly contribute. Some pin oaks are genetically predisposed to damage from iron deficiency (3), and this disorder is most significant where the trees grow in neutral to alkaline soils in which iron is bound in insoluble forms (27). Salt stress causes nutrient imbalances and impairs the winter hardiness of woody plants (39). Plants weakened by air pollutant injury become abnormally susceptible to opportunistic fungi and insects that cause further damage (16, 17). Plants infected with MLOs do not become normally cold hardy, and they may sustain severe winter damage, such as split bark at the base of the trunk. Also, opportunistic fungi cause cankers and dieback in ash trees weakened by MLOs (23).

Decline caused by drastic injury plus secondary stress. This scheme was proposed and verified by plant pathologists and entomologists studying the role of defoliating insects in tree declines. David Houston and Philip Wargo of the U.S. Forest Service have made significant contributions to our understanding of declines that fit this conceptual scheme (11-14, 41). Consider, for example, the decline of oaks after defoliation by insects. In central and eastern states, oaks in both wild and urban forests are defoliated during sporadic outbreaks of oak leaf rollers, cankerworms, or the gypsy moth. Severe defoliation—the removal of three fourths or more of the foliar surface—may cause dieback and death, or it may predispose trees to decline caused by other agents. Defoliation is most damaging if the foliage is removed just as leaves become fully expanded. This loss triggers a second flush of growth during the same season, and the replacement growth depletes the stored carbohydrate reserves of the tree

and leaves it abnormally susceptible to attack by secondary insects and opportunistic fungal pathogens. If the tree is defoliated in two successive years, food reserves are reduced to essentially nil, branch dieback begins, and water sprouts develop along the trunk and major limbs. The opportunistic organisms that most often cause further damage to defoliated oaks are root-rotting fungi, especially *Armillaria* species, and secondary insects, particularly *Agrilus bilineatus*, the two-lined chestnut borer. Larvae of this insect tunnel in the cambial region of weakened trees and girdle and kill limbs or entire trees (12, 14, 41).

Decline of street trees following damage to roots is another example that is best explained by a concept of two-stage causation. The massive removal of roots leads to water stress and to invasion of the wounds by opportunistic fungi, such as *Ganoderma lucidum*, that cause root decay. The limbs and trunks of such trees become abnormally susceptible to secondary insects and to fungi that cause cankers and decay of sapwood. By the time symptoms of decline become noticeable, the original root damage may have been forgotten.



This mature oak tree is declining due to environmental stress and root disease.

Interchangeable predisposing, inciting, and contributing factors

In 1965-1967, Sinclair (34, 35) proposed a scheme in which multiple factors acting interchangeably may first weaken a tree, then trigger decline, and finally exacerbate the problem by their continual influence. He referred to these interacting causes as predisposing, inciting and contributing factors. The key thought in this scheme was that the introduction of a new biotic or abiotic factor or a change in the supply of a factor in an already stressful environment may trigger decline.

Manion refined Sinclair's concept in the textbook, Tree Disease Concepts (21). Manion proposed that we think of decline as a spiral of diminishing health. The tree is first predisposed by adverse factors, and its health and vigor diminish somewhat. Then another factor incites decline, and in due course various contributing factors perpetuate decline until, at the center of the spiral, the tree dies.

The concept of predisposing, inciting and contributing factors is applicable to decline of sugar maple trees in forests and sugarbushes (maple stands managed for syrup and sugar production), since multiple factors usually seem to be involved. Sugar maple grows best on moist, well-drained soils where its root zone is shaded and remains undisturbed. In forests and sugarbushes, trees of this species may be weakened (thus predisposed to decline) by any of the following alone or in combination: grazing livestock, overzealous tapping and sap extraction, timber harvesting, possibly acidic deposition [soil acidification], and certainly defoliation by insects. If these factors stress the tree over several years, its growth will slow, and it may lose the capacity to respond to favorable factors. That is, it may begin to decline. Timber harvesting promotes decline in the residual stand because tree trunks and roots are subject to wounding during logging and to abnormal heating and drying of the soil by greater exposure to sunlight thereafter. These changes not only increase the possibility of drought stress, but alter the interactions of organisms in the root zone. Grazing cattle cause or contribute to decline because their hoofs break feeder roots and compact the soil. Sap harvesting may promote decline if too many tap wounds are made or chemicals are used that thwart compartmentalization of tap holes (causing death of a large volume of sapwood) (32) or too much sap is extracted (depleting sugar that would be used as the energy source for growth). Acidic deposition possibly also plays a role, but direct evidence for this is scant. Opportunistic organisms, especially fungal pathogens, however, always contribute to the damage. *Armillaria* species kill roots, and fungi such as *Cerrena unicolor; Valsa ambiens,* and *Steganosporium* species kill twigs and branches of weakened trees. These organisms are often the immediate causes of dieback (8, 12).

All maple species that are commonly planted in landscapes are also subject to decline for which the concept of predisposing, inciting, and contributing factors seems applicable. Common predisposing and inciting factors include girdling roots, restricted rooting space leading to water stress, cankers and collar rots caused by fungi (especially *Phytophthora* species), soil compaction leading to water shortage and rootlet mortality, deicing salt, chronic effects of *Verticillium dahliae*, severe trunk wounds, and root cutting during excavation. The same opportunistic fungal pathogens found in forests con-

tribute to decline of maples in urban plantings, and they are joined there by such fungi as *Ganoderma lucidum*, which causes root rot, and *Nectria cinnabarina* and *Botryosphaeria obtusa* which cause cankers and dieback (36).

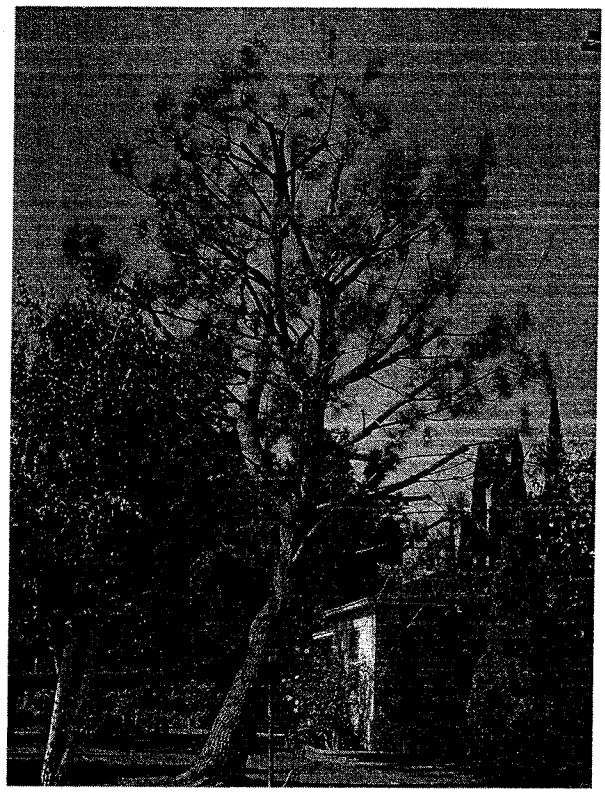
As a further example, consider birch dieback. This disorder caused great damage to paper and yellow birches in the forests of eastern Canada in the 1930s to early 1950s and then subsided. Birch dieback was never fully explained (5), but both circumstantial and some experimental evidence pointed to the involvement of a climatic warming trend that occurred between 1920 and 1950 (7). Mean annual temperatures at various places in the Maritime Provinces rose between 1.0 and 1.4°C during that period. It was tempting to explain birch dieback as simply a response to long-term climatic change, but this explanation was not intellectually satisfying because it did not account for the sudden onset of the dieback syndrome in a given tree (5), and it did not take into account the possible involvement of pathogens. Moreover, the magnitude of the temperature increase was insufficient to cause visible damage under experimental conditions.

Scientists studying birch dieback in Quebec and the Maritime provinces implicated heat, root-infecting fungi, viruses, and secondary insects in the decline. For example, when the soil temperature in the rooting zone of birch seedlings was raised 2°C throughout a growing season by means of heating cables installed underneath, rootlet mortality rose from 6 in control seedlings to near 60 in the treated ones. It appeared that the altered root environment was unfavorable for mycorrhizal fungi but conducive to damage by root infecting fungi that would normally be innocuous (29). In Quebec, birch dieback was most severe where birch was most shallowly rooted. Significant damage to roots was thought to occur during mild [snow free] winters when roots in exposed soil were subject to abnormal freezing and drying (28). This damage would be most likely to occur during abnormally warm winters when the insulating blanket of snow is temporarily absent. As for contributing factors, the bronze birch borer (*Agrilus anxius*) attacked the weakened trees and in many cases was directly responsible for dieback and death. This same insect attacks and kills stressed birches in landscapes. Assorted viruslike symptoms were part of the dieback syndrome, and a strain of apple mosaic virus was eventually found in birch (6), but this virus probably had at most a contributory causal role. It was found in a much larger region than that where birch dieback occurred. Thus the concept of predisposing, inciting, and contributing factors conveniently integrates what is known about the causes of birch dieback.

Synchronous cohort senescence

The fourth concept, which I regard as a variation of the third, was elaborated by Mueller-Dombois and coworkers during the early 1980s, first as an explanation for the decline of ohia (*Metrosideros collina*) trees in Hawaiian forests (25), and later as a general explanation for assorted decline problems in North American Forests (26). The key thought in this concept is that trees of similar age, growing together, display group behavior. As they become older and larger, they are increasingly likely to come under stress, especially as the result of seasonal water shortage. Thus they naturally become predisposed to damage that could incite decline. When a new adverse factor such as drought or a climatic warming trend causes increased stress, the trees may senesce and decline together. This phenomenon is called synchronous cohort senescence. Contributing factors, such as opportunistic fungi and insects, then hasten the decline. Mueller-Dombois et al. (26) adopted a narrow concept of disease in their discussions of synchronous cohort senescence, but neither this shortcoming nor the dissenting opinions of forest pathologists about the cause of ohia decline (9) diminishes the intellectual attractiveness of the central idea in the cohort senescence concept.

Excessive pruning (defoliation) can cause severe stress and even death.



Mueller-Dombois et al. (26) cited birch dieback and pole blight of western white pine as widespread declines for which their concept is appropriate. Pole blight, like birch dieback, was among the several tree declines that came to prominence during the 1930s and then subsided in the 1950s. Pole blight occurred, and still occurs in some localities, in scattered parts of the intermountain region of the northwestern United States and adjacent British Columbia. The name pole blight indicates that this disorder affects dominant and codominant trees that have grown to pole size (15-30 cm diameter). The symptoms include death of rootlets, slow

trunk and twig growth, tufted foliage at branch tips, resinous cankers on the lower parts of the trunk, dieback, and death. The cankers are caused by opportunistic fungi, such as *Ophiostoma trinacriforme*, that are innocuous to trees of normal vigor. Pole blight was eventually explained as primarily a response to a temporary climatic trend of increasing temperature and diminishing rainfall (18). Young white pines growing in soils of low water holding capacity could develop vigorously during periods of normal rainfall, but during prolonged dry periods the roots could not supply the transpirational demands of the tops, and decline resulted (19) The trees declined synchronously in groups of similar age because the members of a group were all subject to a similar level of stress. Thus the concept of synchronous cohort senescence seems highly applicable to pole blight.

Conclusion

Many different disorders of trees can be grouped under the general heading decline. Up to now, four general concepts have been advanced to explain decline, and three of these concepts deal with the roles of multiple causal factors. Each concept is a variation on the theme that decline is caused by chronic stress or sequential insults to the tree. Each concept seems applicable to one or more decline syndromes, but no single concept of causality is applicable to all decline syndromes.

W.A. Sinclair and G.W. Hudler
Department of Plant Pathology
Cornell University, Ithaca, NY
14853-5908

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Oak ordinances: do they help or hurt?

Randall S. Rossi

EVER SINCE THE EARLY 1900s, when the courts upheld the authority of local governments to pass zoning laws, the use of ordinances has been extended to virtually every aspect of land-use regulation. More recently, ordinances have been applied to the protection of plants and animals and the effects of development on the natural environment. Tree ordinances have become commonplace in many communities.

Local government ordinances specifically addressing California's oaks and other native trees are becoming more common. A recent survey of cities and counties in California revealed that there are more than 104 local governments with some type of ordinance affecting native oaks.

As the years of experience with oak ordinances grow, there is mounting evidence that the regulatory approach, in the absence of other affirmative programs, is not the answer. In other words, we are using the "stick" without the "carrot." Ordinances only address the status quo and attempt to prevent further losses, but do nothing to address the cumulative losses of oak woodland and the paucity of regeneration. As population pressures push subdivisions into foothill woodlands that were previously considered uneconomic for development, ordinances will only minimize further losses. What is needed is regional planning and management strategies.

It is ironic that at a time when we are reaping the benefits of years of research into the problems of our diminishing oak resources that local communities are resorting to putting more laws on the books as a solution. This will not put more trees in the ground. We need instead to disseminate the research findings of how to develop around oaks, how to foster their survival, and how to extend their presently-restricted range through natural and artificial regeneration.

There are many reasons why ordinances fail to produce the desired results, as will be discussed below. There are also many positive programs and approaches that have been used successfully in other applications in land-use planning and environmental protection that have received little use in the management of oaks. These also will be discussed below

Why ordinances alone don't work

Anyone who has had the experience of working for the passage of an oak ordinance knows that the very issue of regulating oaks tends to polarize and divide a community. It turns moderates on both sides of the debate into "pro-" and "anti" tree people, when in fact there is a continuum of sentiment and caring people on all sides of the issue. By jumping to the use of an ordinance as a quick fix, we perpetuate the crisis response mentality so common in local government. A better and longer lasting solution is deliberate and comprehensive programs of education, incentives, restoration, and site planning.

Ordinances result in the politicization of oaks and rarely foster an environment of intelligent decision-making. Ordinances send the message "we don't trust you" to the development community, and may leave the individual homeowner with little choice but to become a scofflaw rather than face the cumbersome and costly permit procedures inherent in most ordinances.

Ordinances may actually accelerate the loss of trees. A city on the Central Coast found that they were receiving an inordinate number of requests to remove native oaks, all of which were in the range of nineteen inches in diameter. Site visits to the properties involved showed that the trees were vigorous and healthy and the removals were not related to plans for development or home additions. Upon questioning, applicants said that they wanted to cut the trees before they grew to diameters of twenty inches or more, because at that size the city's ordinance subjected the trees to a greater level of protection and more stringent permit procedures. Thus, the ordinance was resulting in the premature removal of oaks simply as an insurance policy in the event that at a future date they might interfere with plans for a garage, house-addition or swimming pool.

Similarly, most oak ordinances have a minimum threshold of applicability, usually two, three or four inches. Again, the experience in many communities has been that landowners let volunteer saplings grow until

"By jumping to the use of an ordinance as a quick fix, we perpetuate the crisis response mentality so common in local government."

they are just about at the minimum size where the ordinance kicks in. Then one day the chain saw comes out and down go the next generation of oaks, whose only crime was to grow up in a regulated environment. The existence of ordinances also prevents the voluntary planting of oaks and the use of oaks in landscaping for fear that the trees will restrict later use of the land.

These are some of the behavioral reasons why ordinances do not protect trees. But there are also technical reasons.

Most ordinances focus on the big, old trees, in effect creating "museum" stands, rather than encouraging actions that would result in regeneration of mixed-age stands. They preserve trees but not living forests. Most ordinances contain replacement or mitigation provisions, but fail to address the long-term survival potential of the replacement trees. What is needed is survival monitoring and access to management advice over the long term. Perhaps more important, is making sure that the locations where replacement trees are planted are locations where the trees have some chance at longevity, and the land has some type of perpetual protection such as a conservation easement.

Ordinances also tend to preserve trees, but not habitats. More attention needs to be paid to existing and potential wildlife islands and corridors, and soil and plant associations that are part of the oak ecosystem. Ordinances do nothing affirmative in this regard except, at best, hold the status quo.

Another common flaw in ordinances is the rationale used to allow tree removal to accommodate development. Many ordinances reward developers who complete their plans without consulting with city or county staff because findings allow trees to be removed if no "reasonable" (read "economically feasible") alternative design exists that would result in the loss of fewer trees. Developers who come into the planning department with plans already completed argue that they have spent a lot of time and money preparing their plans and have explored all the alternatives. At that point, their financial and emotional investment to the uses and layout are usually unalterable. This "emotional investment" is even more difficult to countermand for the individual who has designed their dream house.

Alternatives to ordinances

As an alternative to the ordinance approach, or at least as a companion effort, there are many incentives, management, and educational programs that should be a part of an integrated approach to oak preservation. These range from relatively simple and inexpensive programs to community-wide resource management plans.

Cities can adopt a policy of using native trees in all of their landscaping. Local governments can establish municipal nurseries or contract with commercial growers to provide a supply of locally-derived stock for planting and give-away programs. A model program in the City of Visalia has shown that it is almost impossible to keep up with the demand for giving away oaks to homeowners and ranchers who want to plant oaks on their property.

Local government can provide, free of charge, the services of an arborist or natural resource specialist to advise homeowners and developers about care and protection of their trees. This assistance can extend to financial subsidies for low-income residents who cannot afford to care for or plant trees. Monies spent on these programs will produce far better results in the long run than a similar amount put into enforcement and "tree cops" to monitor, red tag, and prosecute ordinance offenders.

Communities can be proactive by identifying receiver sites where reforestation can take place. These receiver locations can be used for mitigating the loss of trees due to development or where on-site mitigation is infeasible because a property is already heavily treed or new plantings would be incompatible with the proposed use. Every community has "left-over" places along roadways and interchanges, in corporation yards, floodplains, etc., where trees can be planted and enhance the community without getting in anyone's way.

Cities and counties can encourage a program of voluntary registry where landowners agree to protect their trees and abide by an environmental code of ethics on their land. This effort can extend to the voluntary recordation of a conservation (or "tree") easement on their property which would run with the land and pass on to subsequent owners. Local governments or nonprofit conservation groups can also acquire easements, either through donation or purchase that can accomplish the same long-term protection.

It is a fairly widespread practice in development approvals to require the dedication of land for parks or schools. Such dedications are now being extended to open space and could easily be used to preserve oaks or set aside receiver sites for restoration. The practice of granting development "bonuses" is now well established in zoning practice. In this process, in return for providing some community-wide benefit such as child care or a public plaza, a developer is given additional building area or the relaxation of some zoning standard (such as parking or setbacks). This same approach can be applied to the protection and enhancement of oaks and habitat. Other planning tools that are now rather common, such as the transfer of development rights (TDRs) and cluster zoning, can also be used to protect oaks.

The key to all of these advanced planning approaches is early consultation between the landowner/developer and the local planning agency. Such consultation should include a site reconnaissance or inventory prior to setting pen to paper. In this way, instead of preconceived or generic formulas being used for site planning, the project is designed in response to the site's constraints.

Finally, a city really interested in redressing the loss of oaks, rather than just preserving the status quo, should

develop a resource management plan. General plans, which are the guiding policy documents for municipal corporations, can set the stage for the protection and restoration of oak habitats by affirming their importance to the community.

"Carrot" approach needed

Most ordinances are preservation oriented; so who is looking out for the woodlands of the future? The alternative to the "stick" is to do something affirmative about oak management involving a combination of outreach, education, incentives, restoration and site planning. What is called for is the equivalent of a capital improvement plan directed at the environment rather than infrastructure, sewers and roads. Many new land planning and legal tools, proven in other applications, have potential in an integrated oak enhancement strategy. These include the transfer of development rights, voluntary registries and/or tax donations of conservation easements, development bonuses, receiver sites for off-site mitigation, and a public hotline for information and advice.

What is missing in the ordinance approach is a safety valve or outlet to equalize the pressure that builds up as a result of the regulatory controls. Saying "no" only works for so long. If economic development, construction, and food/fiber production is to continue and we are intent on fostering the oak resource, we must demonstrate that a community can have both. Instead of a tally of trees lost, we must begin a program of acres gained. We have been playing a zero-sum game, where it is either trees or development. This is unnecessary when instead we can create, replan, and expand the oak woodland by plowing fertile ground for ideas — the trees will follow.

Randall S. Rossi, Former long-range planner for the City of San Luis Obispo, CA
Reprinted from Fremontia, July 1990

Recovering from Katrina: A voice of reason

I'VE BEEN SEEING A LOT OF THE POSTS IN RECENT DAYS REgarding ideas aimed at helping communities recover from Hurricane Katrina. We've read of suggestions ranging from how to straighten storm-leaning trees to beginning the growing-out process of making native trees available to needy communities. The outpourings of support and encouragement have been overwhelming, and I sense a really strong bond throughout the many diverse segments of the urban forestry community.

What I'd like most to say, though, is that this storm has presented us all with a truly extraordinary opportunity to put into practice all of the ideas and techniques we have learned throughout the years. So many communities have been devastated that the scale of rebuilding and re-establishment of entire communities may very well be unprecedented in modern times in the U.S.

We will have the chance, if successful, to rectify the urban forestry mistakes of the past; to recreate cities with "built-in" (rather than "tacked-on") green infrastructure; to employ, literally, all the arboricultural and urban forestry knowledge of the past 30 years in an unfettered, open environment.

Heaven knows, we are not yet aware of the level nor the scope of the need. As others have said, we're all still too busy trying to save the people! We may be months away from knowing the effects of the flooding on the trees of New Orleans. However, the fact that trees are renewable is their greatest advantage. We know many are lost but we also know how to go about bringing them back in greater numbers and with greater effectiveness than ever before.

Let's not lose sight of the need to employ sound planning and urban design to the process of rebuilding our towns and cities. If we use our collective voices we can be heard by the decision makers at all levels and the end result will be better, greener communities with healthier and (we hope) longer-lived trees for all. Let's bring that voice to bear! Contact your mayor, legislators, congressmen, senators...tell them all that urban forestry must be a solid component of ALL major relief efforts.

From my perspective (Betsy, '65; Camille '69; Andrew '92; and countless "little" ones) Katrina really has been the "big one". But she has also presented our urban forestry community with a BIG opportunity...let's not squander it!

Stephen A. Shurtz, ASLA, ISA, SMA
Landscape & Forestry Manager
Department of Public Works
City of Baton Rouge
Parish of East Baton Rouge
E-mail: sshurtz@brgov.com

Posted on the Society of Municipal Arborists Webserve
owner-sma@mail.urban-forestry.com
sma@mail.urban-forestry.com

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TREE EVALUATION REPORT

Cardinale Property
South-west corner Oak & 4th Streets
Paso Robles, California

For

City of Paso Robles
1000 Spring Street
Paso Robles, California

January 6, 2006

By

Carolyn B. Leach Consulting, LLC
444 Blume Street
Nipomo, California 93444

Phone # (805)929-9020

Attachment 6
Carolyn Leach Report dated 1/6/05
(OTR 05-008)

Introduction

A lot line adjustment has been requested for the vacant property located at the south-west corner of Oak Street and 4th Street, within the City of Paso Robles, California. The owners of the property, Joseph & Sheryle Cardinale, have submitted a request to the City to re-align the property lines of three contiguous lots. Along with this request, the owners have submitted a report regarding the trees, dated November 10, 2003, written by Jim Lewis of Davey Resource Group. That report recommends that several of the native oak trees on the property be removed.

According to City of Paso Robles code #10-01, protection measures are in place to preserve existing native oak trees within the City boundaries. Removal of any oak trees must follow a strict process before a removal permit is issued. Additionally, any development plans that have the potential to impact existing oak trees must undergo the review of an approved Arborist. Criteria for protection zones have been established to protect both the canopy and the roots of trees.

In reviewing the applicant's request to remove several of the trees, the City has asked for my assistance by providing a second opinion regarding the vigor and structural condition of the trees.

Tree Description

Four trees are affected by this project, three are within the property area and one is just off site. All are mature native oaks. Two are blue oaks, one is a valley oak and the fourth is a Coastal live oak.

To discuss each tree, I will be using the same letter assignment (A-D) found on the "Vicinity Map / Tree Location Map". This map has been attached to this report for clarity.

Please note that the previous Arborist's report uses a differing numbering system (#1-5) and includes a fifth tree. This additional tree is located far off site and is not considered to be affected by this applicant's request.

The trees were observed on December 30, 2005.

- Tree "A" is a blue oak (*Quercus douglasii*) with a triple trunk that measures 14" / 8" / 12" in diameter. These three trunks join at about a foot above grade with a very wide, strong crotch. The smaller of the trunks has been cut back to a stub about eight feet long, and has since sprouted much new sucker growth. The tree has an overall canopy density of 75%, which is normal for this specie. The canopy is nearly symmetrical, with slightly more growth on its south side, where it reaches down to ground level. It is growing at a normal rate, with last season's twig growth measuring from 6 to 14 inches long. The size and quantity of leaves on the ground are normal. All of next year's buds appear plump and normal. There is no tip dieback of the outer canopy.

  The structural integrity of Tree "A" is very good. I found little or no decay within the trunk and main scaffold branches. Some dead branches exist within the interior of the canopy, mostly two inches in diameter or less. They most likely died when the interior leaves became overly shaded by the parts of the canopy that grew above them. The deadwood can be easily pruned away.

  There is a slight wound on the top of the 8" trunk from a hand ax, and a small pocket of decay (3" wide) at its base. Since this trunk has very little limb weight, this does not pose a risk.

- Tree "B" is a blue oak with a single trunk measuring 26 inches in diameter. The main trunk forks into two trunks of equal size at 8 feet above grade. A large 14" diameter main scaffold limb was removed from the north side of this tree about two or three years ago, removing about 20% of the canopy of this tree. There is no decay visible in this cut. The remaining canopy

has a 70% density – normal for the specie. The tree is symmetrical in shape and has good branch spacing throughout the canopy. Twig growth from last season measures 3 to 20 inches long. Leaf size and quantity observed on the ground was normal. New buds were plump and numerous. The canopy spreads to within five feet of the ground on the south side of the tree. The vigor of this tree is normal.

The trunk generally appears normal, with no decay visible (or by sounding with hammer taps). The bark on the trunk is normal with the exception of three recent mechanical wounds measuring 4", 4" and 10" wide. There was no decay visible within these wounds. The tree should be able to easily withstand these injuries. Decay might, over time, start in the largest of the three wounds, and should be monitored.

The main scaffold branches have very little visible decay. There are a few smaller branches in the interior of the canopy that are dead. Again, these are from canopy shading and can easily be resolved by pruning the deadwood away.

- Tree "C" is a valley oak (*Quercus lobata*). It has a single trunk that measures 30" in diameter. This tree has very good vigor, evident by its 80% canopy density, its 4 – 18" twig growth, its leaf size and next year's bud condition.

  This tree also has a small portion of its interior canopy showing dead branches. Again, this is due to competition for light and space with the nearby live branches.

  The larger branches are very long and arching, with little taper along their length. This is typical for the specie, but if unchecked can result in heavy end weight that can break the branch. Careful thinning of the branch ends is the proper solution to this problem.

  The lower trunk has a significant cavity at ground level that extends through the center of the trunk. The two cavity openings measure 8" and 6" wide. The trunk "sounds" hollow to about four feet above grade. Along all sides of both cavity openings are very thick layers of callas wood, measuring 12-18" wide. The callas wood formed after the cavity existed – therefore the cavity is very old. The tree has been able to tolerate the amount of strength loss that the cavity posed for many years. Although it is possible the cavity will continue to be tolerated, it is a serious concern none the less.

- Tree "D" is a Coastal live oak (*Quercus agrifolia*) with two trunks. I was unable to measure the trunks accurately due to poison oak, but they appeared to be about 24 and 28 inches in diameter.

  The 24" trunk to the west is in very poor health, with much dieback and decay of major branches and portions of the trunk. Additionally, most of its foliage was a yellowish-green with very short twig growth (1 – 2"). This tree has been in poor health for many years.

  A portion of the 28" trunk is similarly in decline, with off color foliage and poor growth. However, the major portion of this tree's canopy is in good health with normal foliage color and 6 – 8" new growth.

  This tree is growing in the bottom of a drainage area, and likely is suffering from a root decay disease. The area was waterlogged during my inspection, and it appears there is no swale or creek to which this water can flow – this is a low spot into which other properties drain. This soil condition is not conducive to native oak trees as they become susceptible to soil borne root decaying diseases. This tree is showing distinct signs of major root problems as a result.

  Loss of roots can kill the tree by reducing its ability to absorb adequate amounts of water. Additionally, loss of roots can result in an unstable root system and cause the tree to topple over.

Review and Conclusions

The previous inspection and report, written by Mr. Jim Lewis, took place in late 2003. The trees have not drastically changed in their condition during that time. The arborist states the objective of his report was to "inspect the oaks", and to assess "how the oaks should be addressed during the development of the parcel". He generally discusses his observations and provides a recommendation to remove trees #3 (referred to as "C" in this report), #4 (tree "B") and #5 ("tree "A").

Mr. Lewis states as his reason for recommending removal for trees "A" and "B" that he observed "rot and decay" in major branches. I found no evidence of significant amounts of decay. In fact, the only areas of decay are in a small percentage of the interior branches. This decay is a naturally occurring phenomenon (due to shading) and is not attributed to any weakened vigor or state of decline in the trees. This branch shedding does not spread into or infect the rest of the tree.

I found in trees "A" and "B" that all of the large supporting scaffold limbs and main trunk are nearly free of visible signs of decay.

I strongly disagree with Mr. Lewis that trees "A" and "B" should be removed.

Mr. Lewis and I do agree that tree "C" is problematic because of the decayed cavity in the lower trunk. Because there is a nearby residence, I recommend the owners have a full hazard tree inspection performed on the tree. As I stated earlier in this report, it is possible that the tree has already produced sufficient callas wood near and around the trunk cavity that will provide enough stability to the tree. My work during inspection of this tree does not constitute a full hazard tree inspection.

Mr. Lewis and I disagree, however, about the health and vigor of the canopy and major limbs. He states this tree is "in very heavy decline", while I found the tree to be in a very normal state of health with no signs of decline.

Tree decline is found when a tree is unable to produce new leaves and twigs. The first signs of decline are seen in reduced new growth, smaller leaves, and sometimes by off colored foliage. As decline progresses, dead twig ends develop, and the tree starts "dying back" from its outer and upper tips. This tree (as well as Trees "A" an "B") has very healthy twig ends, leaves, buds and outer canopy.

The presence of decayed wood does not automatically infer tree decline or a reduced state of vigor. Tree vigor can be excellent even in the presence of trunk cavities and a few dead interior branches.

These are two separate issues – tree vigor – and tree structural integrity.

Mr. Lewis and I agree as to the state of tree "D". Because the tree is in danger of falling over, I recommend installing permanent fencing around the circumference of the outer canopy, at a distance far enough out to prevent injury should the tree fall over. This fencing should be installed as soon as possible. Additionally, soil can be removed at the base of the tree to expose the surface of the major buttress roots. This will dry out the roots and potentially stop the spread of root decay. The area should be graded to provide better drainage of surface runoff away from this tree. It should be noted that the tree may be beyond restoring if the root decay is well advanced, and these measures may prove fruitless.

To summarize my recommendations:

Tree "A"	Prune deadwood, train new branches on 8" trunk, monitor
Tree "B"	Prune deadwood, monitor
Tree "C"	Perform full hazard tree inspection to assess strength loss from lower trunk cavity, remove deadwood
Tree "D"	Fence entire area around tree to prevent injury in case of root failure, excavate soil at tree base to provide air to major buttress roots, provide positive drainage away from trunk and root area.

Please let me know if you have any additional questions.

Limiting Conditions:

All trees should be aerially inspected and pruned to remove dead wood, broken limbs, and hazardous conditions. Future inspections and pruning maintenance, at least every three years, is recommended for all trees on this site.

Information in this report covers only the trees examined and reflects the conditions of the trees at the time of inspection. There is no warranty, either express or implied, that the subject trees will not develop problems or deficiencies in the future. Sources of information used in this report are accepted as standard resources, however, the author cannot guarantee the accuracy of information provided by others. Possession of this report or a copy thereof does not imply the right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior written consent of the consultant. Loss or alteration of this report invalidates the entire report. The inspection is limited to visual examination of tree location, as viewed from the ground, without dissection, excavation, probing or coring. No review of tree structural conditions or hazard potential has been provided.

Dated:

Signed:

Carolyn Leach
Registered Consulting Arborist #368

RESOLUTION NO. 06-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES DENYING OTR 05-008 REQUESTING TO REMOVE TWO OAK TREES (CARDINALE/MORRIS)

WHEREAS, the City has received an application submitted by Joe Cardinale and Dick Morris, to remove two (2) Blue Oak trees (with diameters totaling 56-inches) located on the south side of 4th Street, just west of Oak Street, and;

WHEREAS, it is declared that the public interest and welfare requires that the City establish a program for the preservation of oak trees in order to maintain the heritage and character of the City of El Paso de Robles ("The Pass of the Oaks") as well as preserve the beauty and identity of the community; and

WHEREAS, the purpose and intent of the Oak Tree Preservation Ordinance states that "preservation of existing oak trees and opportunities to promote the establishment of new oak trees shall be the focus of the Planning Commission and/or City Council in conjunction with consideration of any development project or development related entitlement"; and

WHEREAS, Section 10.01.050.C of the Municipal Code states that "the only oak trees which are six-inches or greater DBH whose removal the Director is authorized to permit are trees that are clearly dead or diseased beyond correction"; and

WHEREAS, the Director is unable to conclude from the information that the Applicants have submitted and evaluated by an independent arborist report that the Oak Trees A & B are "clearly dead or diseased beyond correction"; and

WHEREAS, it has been determined by both Jim Lewis and Carolyn Leach that Tree C, a 30-inch Valley Oak is diseased beyond correction; and

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of El Paso de Robles does hereby deny the request to remove the two (2) Blue Oak trees (trees A and B) based on the Community Development Director's determination that the condition of the trees are not clearly dead or diseased beyond correction, and require the applicants to design a project in accordance with the Oak Tree Ordinance, with the goal of preserving the Oak Trees; and

ALSO, BE IT RESOLVED, that the City Council of the City of El Paso de Robles does hereby allow the removal of tree C, a 30-inch Blue Oak Tree, based on both Arborist Report indicating that the tree is diseased beyond correction and not require replacement trees, since the decline of the trees was not the fault of the property owners and appears to be of natural causes.

PASSED AND ADOPTED by the City Council of the City of El Paso de Robles this 4th day of April 2006 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Frank R. Mecham, Mayor

ATTEST:

_____
Cathy M. David, Deputy City Clerk