Lorrie Stark
Parcel Split
APN: 102-070-17

Wildland Fire Safe Plan

Prepared for:

Lorrie Stark

Prepared by:

CDS Fire Prevention Planning
William F. Draper
Registered Professional Forester
#898
4645 Meadowlark Way
Placerville, CA 95667

August 24, 2008
(Revised 9/30/08)

Lorrie Stark

Plan Approved by:

Guy M Delaney 10-13-08

Guy Delaney, Fire Captain **Date**
Fire Prevention
Rescue Fire Protection District

10-13-08

Chris Anthony, Battalion Chief **Date**
Fire Prevention
California Department of Forestry
and Fire Protection

Prepared by:

Wm F Draper 10-13-08

William F. Draper **Date**
RPF 898

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I. PURPOSE AND SCOPE

Communities are increasingly concerned about wildfire safety. Drought years coupled with flammable vegetation and annual periods of severe fire weather insure the potential for periodic wildfires.

The purpose of this plan is to assess the wildfire hazards and risks of the Lorrie Stark parcel split, to identify measures to reduce these hazards and risks and protect the native vegetation. There are moderate fuel hazards and gentle to moderate topography associated with this proposed project both on and adjacent to the project.

The possibility of large fires occurring when the parcel split is complete will be greatly reduced. However, small wildfires in the open space areas and on the larger lots may occur due to the increase in public uses.

Incorporation of the fire hazard reduction measures into the design and maintenance of the future parcels will reduce the size and intensity of wildfires and help prevent catastrophic fire losses. State and County regulations provide the basic guidelines and requirements for fire safe mitigation measures and defensible space around dwellings. This plan builds on these basic rules and provides additional fire hazard reduction measures customized to the topography and vegetation of the development with special emphases on the interface of homes and wildland fuels.

The scope of the Stark Wildland Fire Safe Plan recognizes the extraordinary natural features of the area and designs wildfire safety measures which are meant to compliment and become part of the community design. The Plan contains measures for providing and maintaining defensible space around future homes. Plan implementation measures must be maintained in order to assure adequate wildfire protection.

Homeowners who live in and adjacent to the wildfire environment must take primary responsibility along with the fire services for ensuring their homes have sufficient low ignitability and surrounding fuel reduction treatment. The fire services should become a community partner providing homeowners with technical assistance as well as fire response. For this to succeed it must be shared and implemented equally by homeowners and the fire services.

II. FIRE PLAN LIMITATIONS

The Wildland Fire Safe Plan for the Stark Parcel Split does not guarantee that wildfire will not threaten, damage or destroy natural resources, homes or endanger residents. However, the full implementation of the mitigation measures will greatly reduce the exposure of homes to potential loss from wildfire and provide defensible space for firefighters and residents as well as protect the native vegetation. Specific items are listed for homeowner's attention to aid in home wildfire safety.

III. LORRIE STARK WILDLAND FIRE SAFE PLAN

1. PROJECT DESCRIPTION

The Stark Split is located just outside the community of Rescue. It is located on Deer Valley Road approximately 2 miles from Green Valley Road. It is on west to south facing slopes in gentle to moderately steep terrain of oak woodland vegetation. This project is

planning to split parcel APN: 102-070-17 totaling 20 acres into 4 lots. Each lot will be 5 acres in size. There is a dry pasture at the front of the property. The parcels have steeper slopes to the east which have a heavy understory of chamise and manzanita with a scattered overstory gray pines and oaks. Slopes vary up to 25+%. Access is going to be a new 20' road with a fuel hazard reduction zone along the roadway. The 20' road width and weight limits on the culvert crossings are required by the 2007 California Fire Code. The road is approximately 1,600' with a proposed "T" turnaround at the end and the road length is consistent with RE-5 zoning. The project will have a fuel hazard reduction zone of 20' on both sides of the roadway for the length of road frontage on the project due to the heavy fuels and topography. There is currently a gate at the beginning of the property that the landowner will remove. There are 2 culvert crossings with seasonal creeks passing through the property. Both creekbeds have heavy fuel loading and will require treatment due to the very dry nature of the vegetation. The lots are going to be on well water and a fire hydrant (standpipe) for fire protection will be included at each new house when constructed. Residential fire sprinklers are required for each house built as per the 2007 California Fire Code. Houses less than 3,600 square feet (sqft) are required to have a minimum of 3,000 gallons of water stored at 20 lbs pressure (psi) for fire protection. Water storage requirements will increase depending on the square footage of the residence. This tank shall be kept full at all times and may be incorporated into the domestic water supply (See Diagram A). Freeze protection needs to be provided to all exposed plumbing. A fuel hazard reduction zone for fire protection shall be built along both sides of the driveways and annually maintained by the homeowners. The zone will be 10' wide.

The creeks have a standard 50' setback from any residential construction. Since the creeks are seasonal and have heavy fuelloading of toyon, blackberries, Liveoak, willow, and gray pine, it will be necessary to thin this vegetation back from the road for 50' up and down stream and for 10' on each side of the creek. In case of a wildland fire these areas provide a real threat for anyone using the road. This creekside thinning will require periodic maintenance (approximately every 2 years).

Structural fire protection is provided by the Rescue Fire Protection District and wildland fire protection by the California Department of Forestry and Fire Protection (CALFIRE).

2. PROJECT VEGETATION (FUELS)

For wildfire planning purposes the vegetation is classified as follows:

(a) ground fuels- annual grasses, chamise, toyon, coffeeberry, buckeye, manzanita, poison oak, and scattered down trees and limbs
(b) overstory- scattered stands of Liveoak, white oak, ponderosa pine, and California gray pines.

The heaviest vegetation is from the creeks up the slopes to the top of the property. Fire hazard reduction of the fuels will be extremely important along the road and around the house sites. Gray pines need to be removed if within 30 feet of any structure. CDF guidelines for the 100 foot clearance requirements are attached. The existing structures on parcel B need to adhere to the current Fire Safe clearance standards required by PRC 4291.

3. PROBLEM STATEMENTS

A. The brush fuels on the slopes will ignite and have a rapid rate of spread.

Fire in the grass and brush fuels on the side slopes is the most serious wildfire problem for this project.

B. A high percentage of the project has slopes. This increases the rate of wildfire spread.

Wildfire rate of spread increases dramatically as slope increases. This project has grass and brush slopes.

C. Risk of fire starts will increase with development.

The greatest risk from fire ignition will be along roads and on large lots as human use on these areas increases.

D. Provisions must be made to maintain all fuel treatments.

The wildfire protection values of fuel reduction are rapidly lost if not maintained. Annual maintenance by June 1 of each year is necessary.

E. Typical home design and siting often does not recognize adequate wildfire mitigation measures.

A review of many wildfires has conclusively shown that most home losses occur when: (1) there is inadequate clearing of flammable vegetation around a house, (2) roofs are not fire resistant, (3) homes are sited in hazardous locations, (4) firebrand ignition points and heat traps are not adequately protected and (5) there is a lack of water for suppression.

4. GOALS

A. Modify the continuity of high hazard vegetation fuels.
B. Reduce the size and intensity of wildfires.
C. Ensure defensible space is provided around all structures.
D. Design fuel treatments to minimize tree removal.
E. Ensure fuel treatment measures are maintained.
F. Identify fire safe structural features.
G. Help homeowners protect their homes from wildfire.

5. WILDFIRE MITIGATION MEASURES

Wildfire mitigation measures are designed to accomplish the Goals by providing and maintaining defensible space and treating high hazard fuel areas. Fire hazard severity is reduced through these mitigation measures. The Wildland Fire Safe Plan places emphasis on defensible space around structures.

The road placement, standpipe location and fuel treatments will be extremely important in the development of these new lots. Fuel hazard reduction zones of at least 10 feet in width shall be installed along the road and driveways.

This parcel split is in a Moderate Fire Hazard Severity Zone. Wildland-Urban Interface Fire Areas Building Standards will be required in new construction. These standards address roofing, venting, eave enclosure, windows, exterior doors, siding, and decking.

Clearance along the road and around structures is very important and necessary. All trees in the fuel hazard reduction zones shall be thinned so the crowns are not touching. Branches on trees remaining shall be pruned up 10 feet as measured on the uphill side of the tree. Brush shall be removed. Grasses shall be kept mowed to a 2 inch stubble

annually by June 1. Any tree crown canopy over the road shall be pruned at least 15 feet up from the road surface.

The fuel hazard reduction zone shall continue along both sides of the road and driveways and be at least 10 feet wide along the driveways and 20' along the road on the project. This zone is in addition to the clearances required by state law. The State required Fire Safe clearances (PRC 4291) shall be implemented around all structures (See CDF Guideline). Clearances may be required at the time of construction.

More restrictive standards may be applied by approving El Dorado County Authorities. Approval of this plan does not by itself guarantee approval of this project.

Mitigation Measures:

- **Lots over l acre shall be landscaped to Firescaping Standards Zones I and II. (See Appendix A)**
  - **a. Responsibility- homeowner at the time construction starts**

- **All new residences shall have an approved 13-D fire sprinkler system or meet fire floe as prescribed in the 2007 California Fire Code. The fire sprinkler system shall be approved by Rescue Fire Protection District and installed by a licensed contractor.**
  - **a. Responsibility- builder/homeowner**

- **The new 20' wide road, creek crossings and turnaround shall have an all-weather surface and constructed to El Dorado County Department of Transportation (DOT) specifications. The road width, "T" configuration and weight limit on the culverts shall be consistent with the 2007 California Fire Code.**
  - **a. Responsibility- developer**

- **The new road shall have its new name filed through DOT at the time of construction.**
  - **a. Responsibility- developer**

- **Driveways shall be 12 feet wide.**
  - **a. Responsibility- builder/homeowner**

- **Driveways over 16% grade shall be paved.**
  - **a. Responsibility- builder/homeowner**

- **All private driveway gates shall be inset on the driveway at least 30 feet from the road. Gate opening shall be 2 feet wider than the driveway. Knox lock assess shall be provided to the fire department.**
  - **a. Responsibility- homeowner**

- **Driveways over 300' shall have a turnaround within 150' of a residence but not closer than 50'. The standpipe shall be located on the turnaround.**
  - **a. Responsibility-builder/homeowner**

- **All homes shall have Class A listed roof covering.**
    a. **Responsibility- builder/homeowner**

- **Decks that are cantilevered over the natural slope shall be enclosed.**
    a. **Responsibility- builder/homeowner (See Appendix C for guidelines)**

- **The houses shall be constructed with exterior wall sheathing that shall be rated noncombustible.**
    a. **Responsibility-builder/homeowner**

- **Windows and doors on the sides of the structure shall have tempered glass and fire resistant frames.**
    a. **Responsibility-builder/homeowner**

- **Rafter tails shall be enclosed with noncombustible material on the sides of the structure.**
    a. **Responsibility-builder/homeowner**

- **Gutters and downspouts shall be noncombustible.**
    a. **Responsibility-builder/homeowner**

- **Attic and floor vents shall be covered with ¼ inch, or less, noncombustible mesh and horizontal to the ground.**
    a. **Responsibility-builder/homeowner**

- **All lots shall have a 30 foot setback for residences including any accessory buildings and a 30 foot setback from the center of the road.**
    a. **Responsibility- builder/homeowner**

6. **<u>OTHER FIRE SAFE REQUIREMENTS</u>**

A. A 3,000+ gallon water tank filled for fire protection shall be installed and plumbed with a standpipe with a NTS 2 ½" male hose connection. It shall have a valve at the connection. The tank and connect shall conform to Rescue Fire Protection District standards. (Diagram A)

B. The standpipe shall be located near the residence but not closer than 50' nor more than 150' and on a turnout/turnaround.

C. A 20' fuel hazard reduction zone along both sides of the road on the project property and a 10' zone along the driveways shall be installed and annually maintained by June 1.

D. The property owners shall be charged with the responsibility for forming a Home Owners Association (HOA) for maintaining the fuel treatment zone along the road.

E. The 20' creek side thinning shall be required with the initial fuel hazard reduction and the HOA shall maintain this area every 2 years.

F. **Every 5 years the Fire Department may review open space areas with the residences to determine if additional fuel hazard reduction work is necessary.**

G. **A Notice of Restriction shall be filed with the final parcel map which stipulates that a Wildland Fire Safe Plan has been prepared and wildfire mitigation measures must be implemented. All road improvements and fuel hazard reduction zone requirements shall be completed prior to filing the final map.**

H. **The project shall meet all the Public Resource Codes 4290 as amended (the 1991 SRA Fire Safe Regulations- Article 2 Access, Article 3 Signing, Article 4 Water, Article 5 Fuels), County and Fire Department ordinances.**

I. **The home/property owner is responsible for any future fire safe or building code changes adopted by the State or local authority.**

J. **If composite deck material is to be used, it shall comply with standards specified in Chapter 7A of the California Building Code.**

K. **The new road shall be posted "No Parking"**

IV. Appendix

APPENDIX A

STARK SPLIT
FIRESCAPING STANDARDS

Firescaping is an approach to landscaping to help protect homes from wildland fires. The goal is to create a landscape that will slow the advance of a wildfire and create a Defensible Space that provides the key point for fire fighting agencies to defend the home. This approach has a landscape zone surrounding the home containing a balance of native and exotic plants that are fire and drought resistant, help control erosion, and are visually pleasing. Firescaping is designed not only to protect the home but to reduce damage to oaks and other plants.

Zone I

The zone extends to not less than 30 feet from the house **or to the property line which ever is less** in all directions and has a traditional look of irrigated shrubs, flowers gardens, trees and lawns. All dead trees, brush, concentrations of dead ground fuels (tree limbs, logs etc. exceeding 1inch in diameter) shall be removed. All native oak trees and brush species are pruned up to 6-8 feet above the ground as measured on the uphill side but no more than 1/3 of the live crown. The plants in this zone are generally less than 18 inches in height, must be slow to ignite from wind blown sparks and flames. Such plants should produce only small amounts of litter and retain high levels of moisture in their foliage year around. Gray pines shall be excluded from this zone. Native and exotic trees are permitted inside the Zone, but foliage may not be within 10 feet of the roof or chimney. Grass and other herbaceous growth within this zone must be irrigated or if left to cure must be mowed to a 2 inch stubble, chemically treated or removed. Such treatment must be accomplished by June 1, annually. This zone has built in firebreaks created by driveways, sidewalks etc.

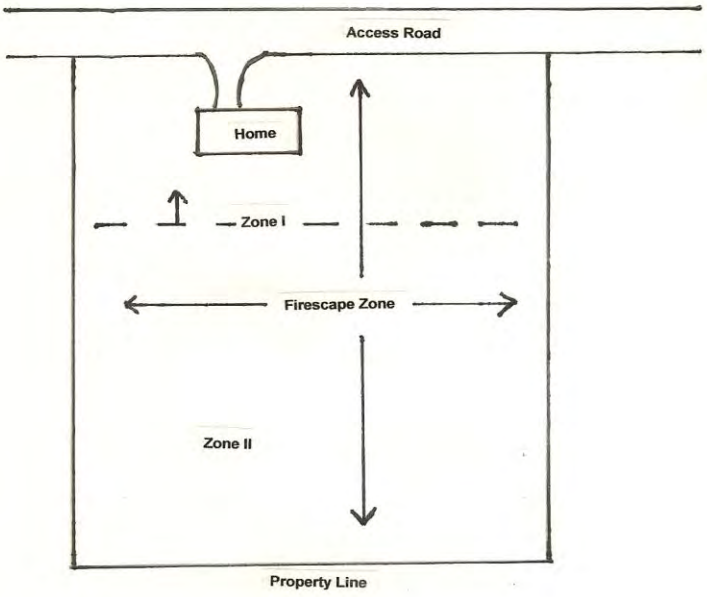
Zone II

This Zone adds 70 feet to Zone I and extends a minimum of 100 feet from the house in all directions, **or to the property line which ever is less,** and is a transition area to the outlying vegetation. The zone is a band of low growing succulent ground covers designed to reduce the intensity, flame length and rate of spread of an approaching wildfire. Irrigation may be necessary to maintain a quality appearance and retain the retardant ability of the plants. All dead trees, brush, concentration of dead ground fuels (tree limbs, logs etc.) exceeding 2 inches in diameter shall be removed. Annual grasses shall be mowed after they have cured to a 2 inch stubble by June 1, annually. Native trees and brush species may be preserved and pruned of limbs up to 8 feet above the ground as measured on the uphill side.

For All Zones With Oaks

Mature, multi stemmed Oaks can present a serious wildfire problem if untreated. Treat the Oaks as to the following specifications: (a) remove all dead limbs and stems and (b) cut off green stems at 10 feet above the ground as measured on the uphill side that arch over and are growing down towards the ground.

APPENDIX A-1
FIRESCAPING ZONES
EXHIBIT



Typical Lot in Oak Woodland
(schematic, no scale)

APPENDIX B

STARK SPLIT
FUEL TREATMENT SPECIFICATIONS
For
OAK WOODLAND
Within The Designated Fuel Treatment Areas

1. Leave all live trees.

2. Remove all dead trees.

3. Remove all brush.

4. Prune all live trees of dead branches and green branches 10 feet from the ground as measured on the uphill side of the tree, except no more than 1/3 of the live crown is removed. All slash created by pruning must be disposed of by chipping or hauling off site.

5. Annually by June 1, reduce the grass or weeds to a 2 inch stubble by mowing, chemical treatment, disking or a combination of treatments.

6. Mature, multi stem Oak trees: remove all dead limbs and stems, cut off green stems at 10 feet above the ground as measured on the uphill side that arch over and are growing down towards the ground.

7. Gray pines within 30 feet of a house shall be removed. Those pines in Zone II shall be isolated with no brush understory within the dripline of the tree.

APPENDIX C

STARK SPLIT
ENCLOSED DECK GUIDELINES

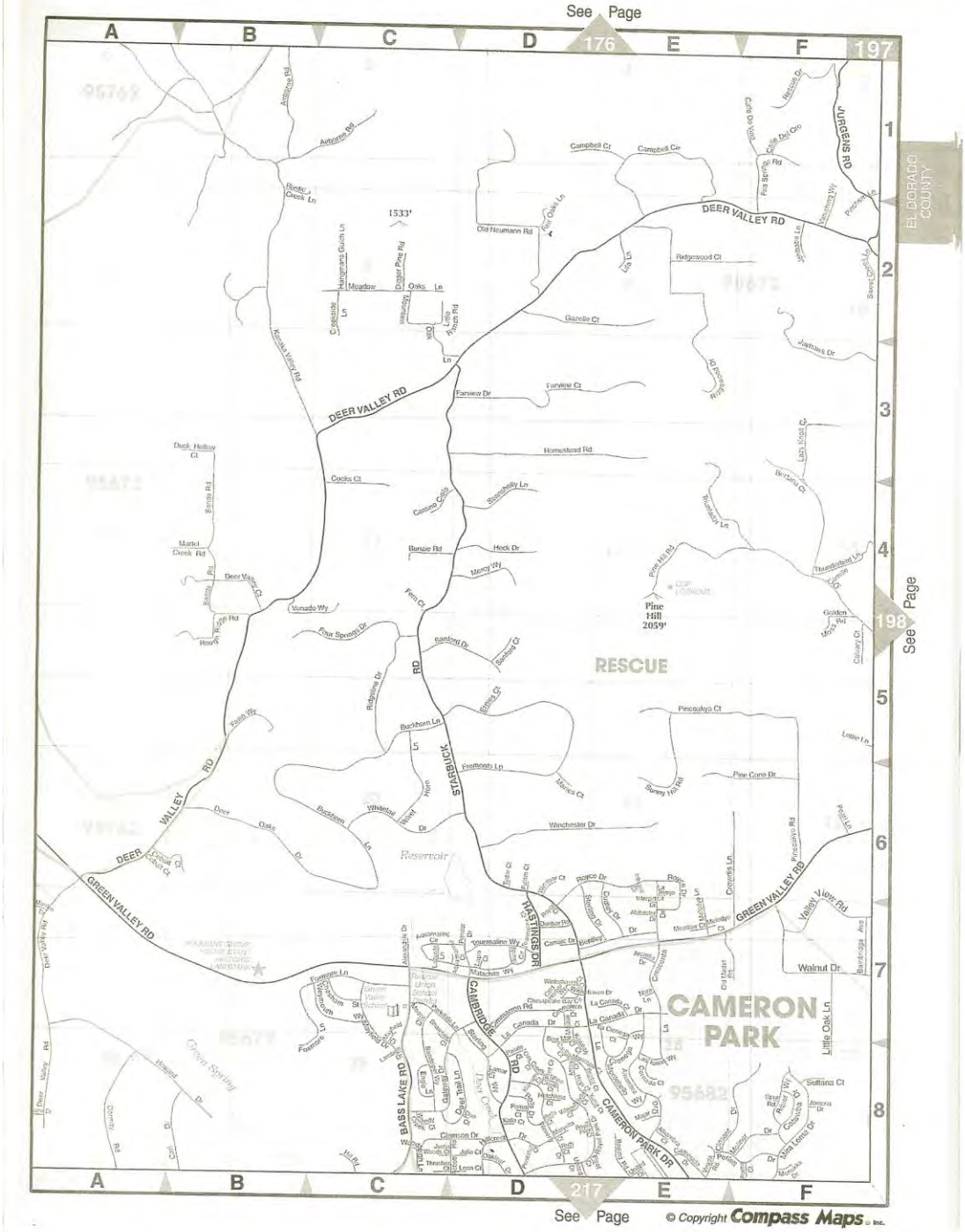
The purpose of enclosing the underside of decks that are cantilevered out over the natural slope is to help prevent heat traps and fire brands from a wildfire igniting the deck or fuels under the deck.

1. Does not apply to decks that are constructed using fire resistant materials such as concrete, steel, stucco etc.

2. Any composite deck surface shall comply with the ignition resistant standards set forth in Chapter 7A of the 2007 California Building Code.

3. Applies to decks one story or less above natural slopes.

4. Combustible material must not be stored under the deck.


See Page 176
See Page 198
See Page 217
A
B
C
D
E
F
1
2
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4
5
6
7
8
DEER VALLEY RD
JURGENS RD
GREEN VALLEY RD
STARBUCK RD
DEER VALLEY RD
BASS LAKE RD
CAMBRIDGE RD
HASTINGS DR
CAMERON PARK DR
CAMERON PARK
RESCUE
Reservoir
Pine Hill 2059'
1533'
EL DORADO COUNTY
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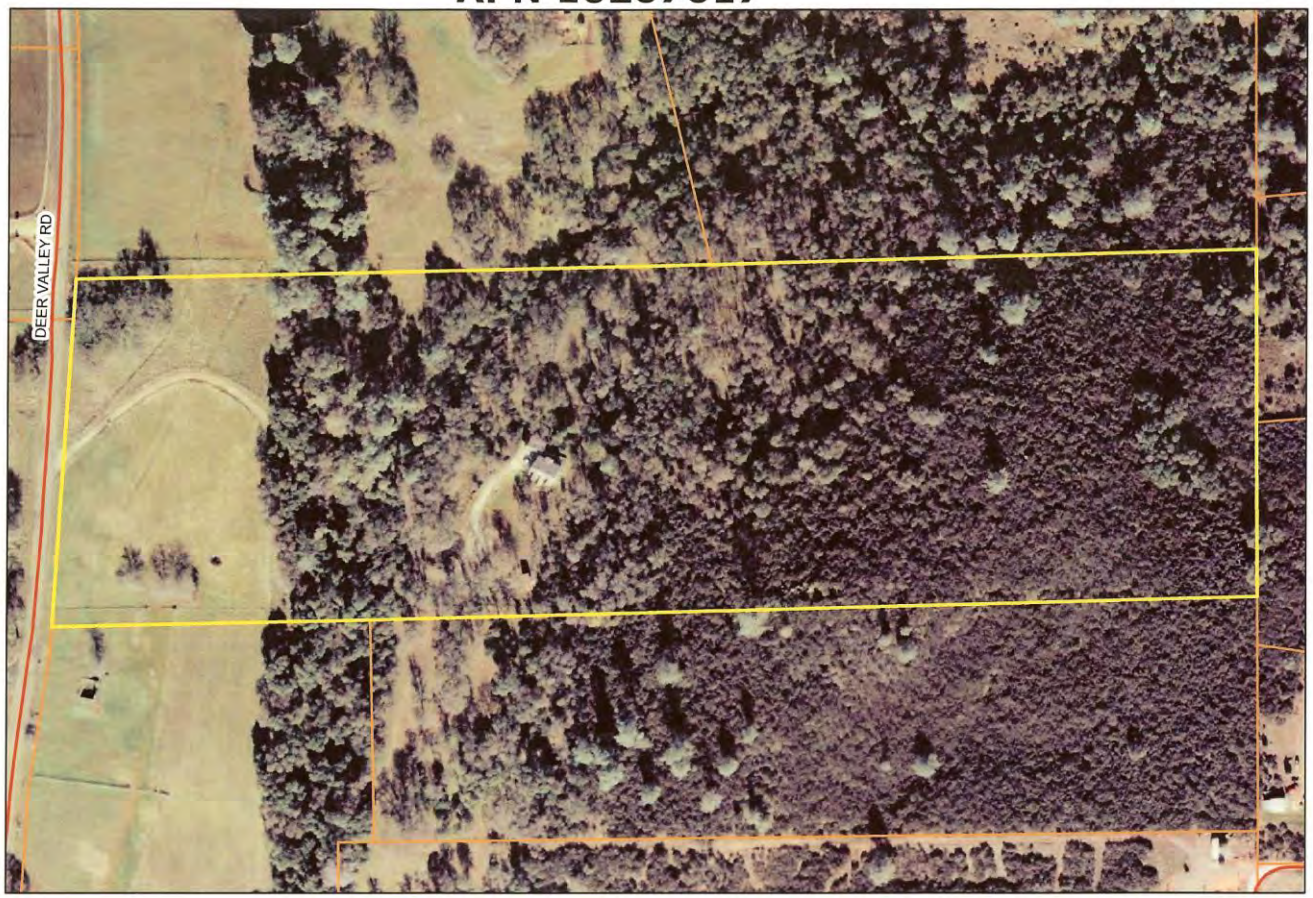
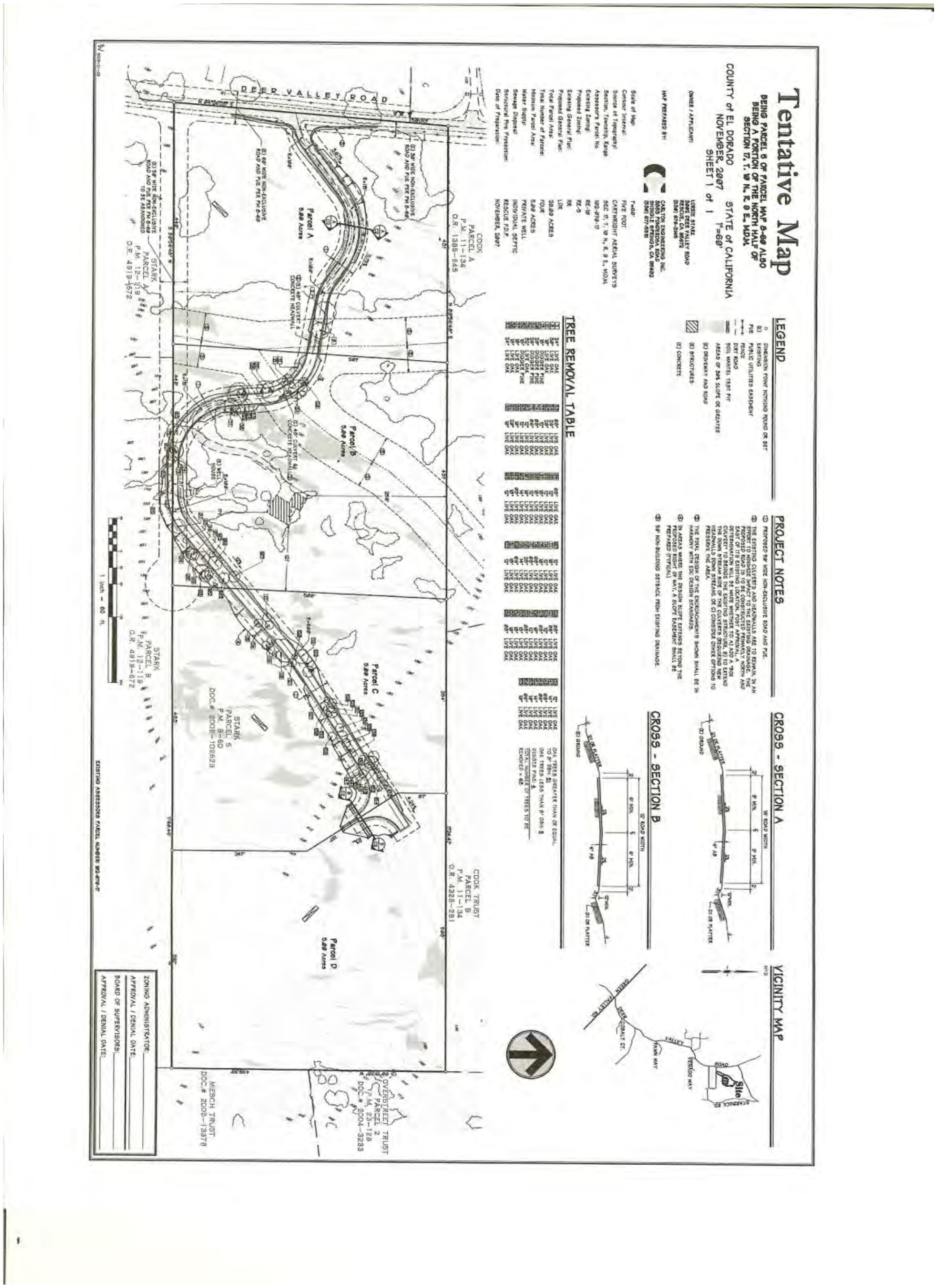


Disclaimer: This depiction was compiled from unverified public and private sources and is illustrative only. No representation is made as to accuracy of this information. Parcel boundaries are particularly unreliable. Users make use of this depiction at their own risk.

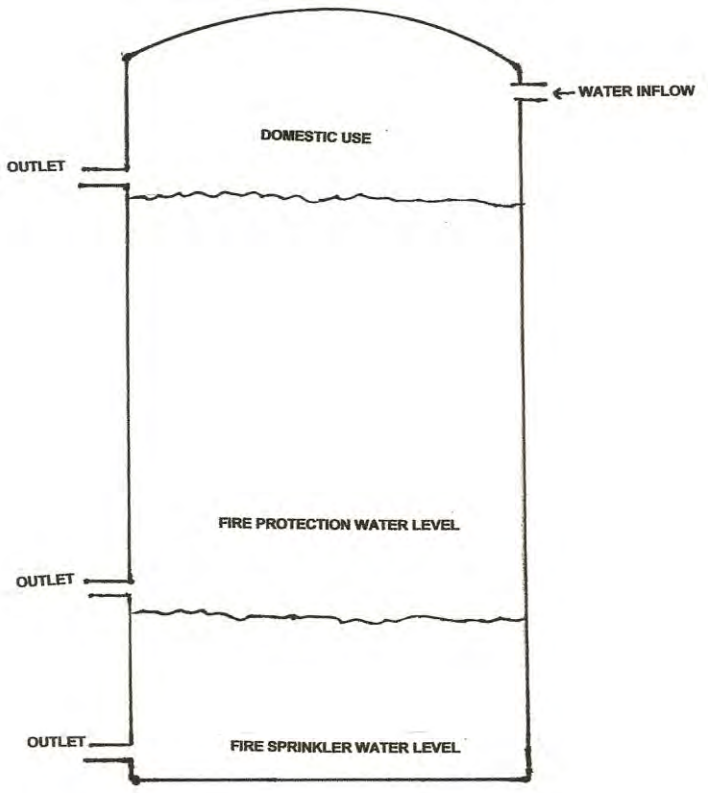
Printed on 8/25/2008 from El Dorado County Surveyor's Office

0 140 280 420
Feet
Map displayed in State Plane Coordinate System
(NAD 1983 California Zone 2, feet)

LOT MAP


Tentative Map
LEGEND
PROJECT NOTES
TREE REMOVAL TABLE
CROSS - SECTION A
CROSS - SECTION B
VICINITY MAP
DEER VALLEY ROAD
Parcel A
Parcel B
Parcel C
Parcel D

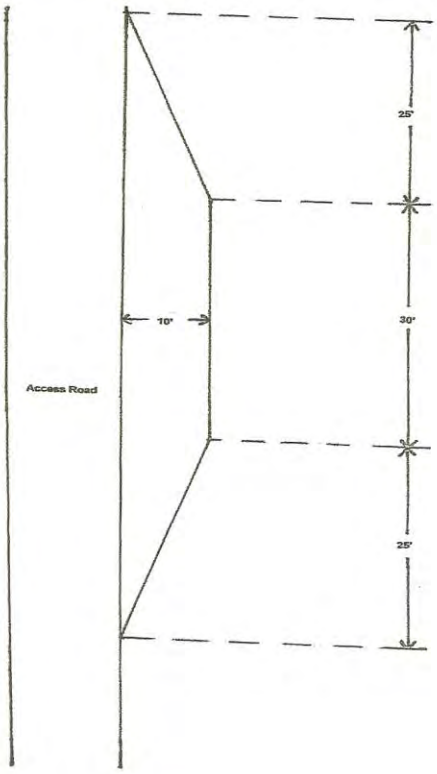
WATER STORAGE TANK
(SCHEMATIC)



(Not to Scale)

DRIVEWAY TURNOUT

DIAGRAM
(NOT TO SCALE)



APPENDIX D

FIRE APPARATUS ACCESS ROADS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION D101
GENERAL

D101.1 Scope. Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the *International Fire Code*.

SECTION D102
REQUIRED ACCESS

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34 050 kg).

SECTION D103
MINIMUM SPECIFICATIONS

D103.1 Access road width with a hydrant. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm). See Figure D103.1.

D103.2 Grade. Fire apparatus access roads shall not exceed 10 percent in grade.

Exception: Grades steeper than 10 percent as approved by the fire chief.

D103.3 Turning radius. The minimum turning radius shall be determined by the fire code official.

D103.4 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

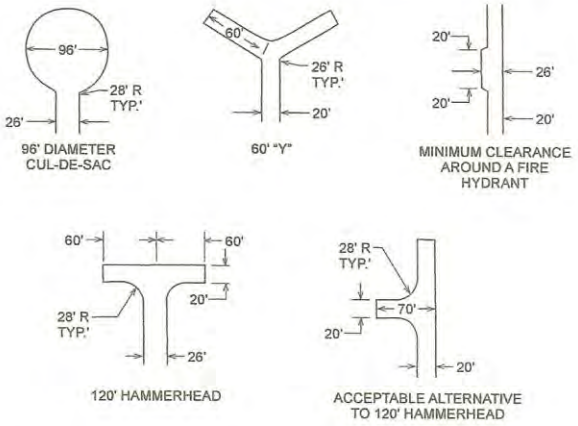
TABLE D103.4
REQUIREMENTS FOR DEAD-END FIRE APPARATUS ACCESS ROADS

LENGTH (feet)	WIDTH (feet)	TURNAROUNDS REQUIRED
0–150	20	None required
151–500	20	120-foot Hammerhead, 60-foot "Y" or 96-foot-diameter cul-de-sac in accordance with Figure D103.1
501–750	26	120-foot Hammerhead, 60-foot "Y" or 96-foot-diameter cul-de-sac in accordance with Figure D103.1
Over 750	Special approval required	

For SI: 1 foot = 304.8 mm.

D103.5 Fire apparatus access road gates. Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. The minimum gate width shall be 20 feet (6096 mm).

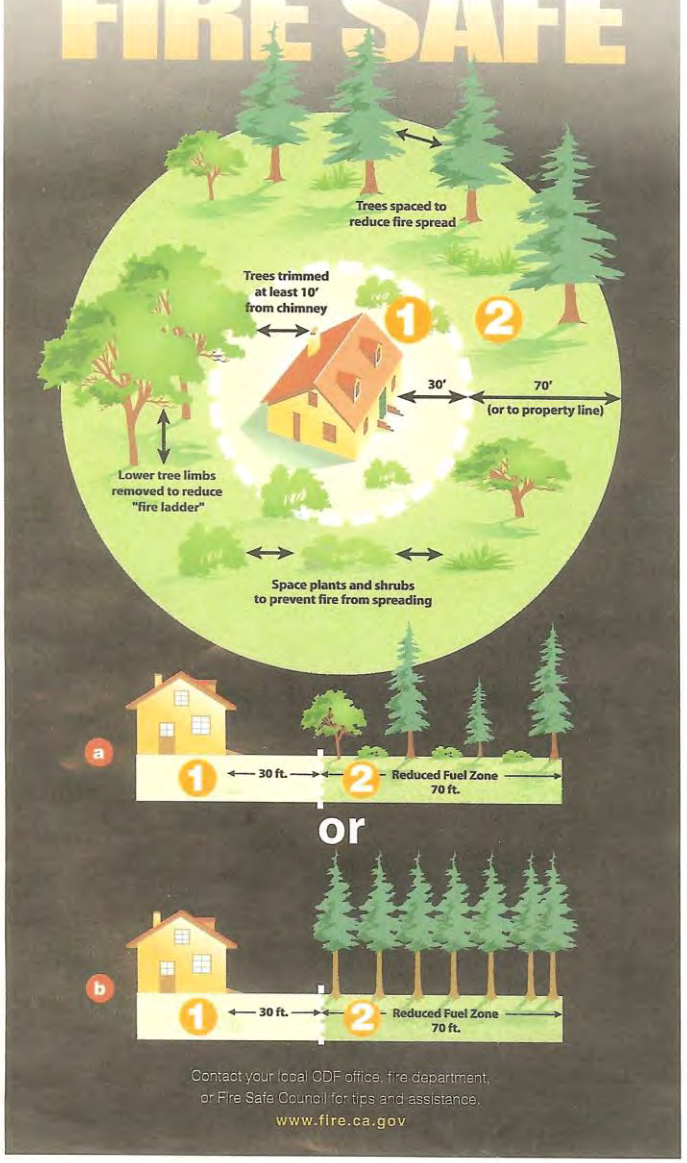


For SI: 1 foot = 304.8 mm.

FIGURE D103.1
DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND

CDF GUIDELINE

100' DEFENSIBLE SPACE
Make Your Home FIRE SAFE



Contact your local CDF office, fire department, or Fire Safe Council for tips and assistance.

www.fire.ca.gov

Why 100 Feet?

Following these simple steps can dramatically increase the chance of your home surviving a wildfire!

A **Defensible Space** of 100 feet around your home is required by law.[1] The goal is to protect your home while providing a safe area for firefighters.

1 "Lean, Clean and Green Zone"

– Clearing an area of 30 feet immediately surrounding your home is critical. This area requires the greatest reduction in flammable vegetation.

2 "Reduced Fuel Zone."

– The fuel reduction zone in the remaining 70 feet (or to property line) will depend on the steepness of your property and the vegetation.

Spacing between plants improves the chance of stopping a wildfire before it destroys your home. You have two options in this area:

a. Create horizontal and vertical spacing between plants. The amount of space will depend on how steep the slope is and the size of the plants.

b. Large trees do not have to be cut and removed as long as all of the plants beneath them are removed. This eliminates a vertical "fire ladder."

When clearing vegetation, use care when operating equipment such as lawnmowers. One small spark may start a fire; a string trimmer is much safer.

Remove all build – up of needles and leaves from your roof and gutters. Keep tree limbs trimmed at least 10 feet from any chimneys and remove dead limbs that hang over your home or garage. The law also requires a screen over your chimney outlet of not more than ½ inch mesh.

1. These regulations affect most of the grass, brush, and timber-covered private lands in the State. Some fire department jurisdictions may have additional requirements. Some activities may require permits for tree removal. Also, some activities may require special procedures for, 1) threatened and endangered species, 2) avoiding erosion, and 3) protection of water quality. Check with local officials if in doubt. Current regulations allow an insurance company to require additional clearance. The area to be treated does not extend beyond your property. The State Board of Forestry and Fire Protection has approved Guidelines to assist you in complying with the new law. Contact your local CDF office for more details.

April 2005