

**Thorne Parcel Split
APN: 102-120-13**

Wildfire Fire Safe Plan

Prepared for:

Gene Thorne

Prepared by:

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

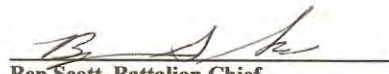
December 11, 2006

Thorne Parcel Split

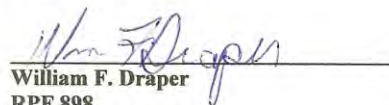
Thorne Parcel Split

Plan Approved by:

 12-18-06 Date
Guy Delaney, Fire Captain
Fire Prevention
Rescue Fire Protection District

 12/19/06 Date
Ben Scott, Battalion Chief
Fire Prevention
California Department of Forestry
and Fire Protection

Prepared by:

 12-19-06 Date
William F. Draper
RPF 898



CONTENTS

| | | |
|------|--|----|
| I. | Purpose..... | 4 |
| II. | Fire Plan Limitations..... | 4 |
| III. | Wildfire Fire Safe Plan..... | 5 |
| | 1. Project Description..... | 5 |
| | 2. Project Vegetation (Fuels)..... | 5 |
| | 3. Problem Statements..... | 5 |
| | 4. Goals..... | 6 |
| | 5. Wildfire Mitigation Measures..... | 6 |
| | 6. Other Fire Safe Requirements..... | 7 |
| IV. | Appendix | |
| | A. Firescaping Standards..... | 9 |
| | B. Fuel Treatment Specifications Oak Woodland..... | 11 |
| | C. Water Storage Tank Schematic..... | 12 |
| | D. Driveway Turnout Diagram A..... | 13 |
| | E. CDF Guideline..... | 14 |
| | F. Map..... | 15 |

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 this 31.519 acre three way parcel split and to identify measures to reduce these hazards and risks and protect the native vegetation. There are low fuel hazards and gentle topography associated with this proposed parcel split both on and adjacent to the project.

The possibility of large fires occurring when this project 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 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 Thorne Wildfire 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 development 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 Wildfire Fire Safe Plan for this development 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. WILDFIRE FIRE SAFE PLAN

1. PROJECT DESCRIPTION

This 31.519 acre project is located outside the unincorporated community of Rescue and within El Dorado County on a generally flat to east facing slope. The property is on Jayhawk Road off of Deer Valley Road. The property lies west of Deer Valley and near the east end of Deer Valley Road. The project site is .25 miles from Deer Valley Road on the west side of Jayhawk Road. This project will create 3 lots, each approximately 10 acres in size. Jayhawk Road is approximately 15 feet wide with limited brushed shoulders. The existing road will serve this project. New driveways will be created to serve new residences. An existing house, swimming pool and detached garage will be on the new parcel 1. Parcel 3 has a house under construction on it. There is a horse corral on this parcel. Refer to Map A for the new parcel configuration.

Structural fire protection is provided by the Rescue Fire Protection District and wildland fire protection by the California Department of Forestry and Fire Protection (CDF). A private fire hydrant and storage tank shall be installed to serve the project at the house under construction. Water storage will be required on Parcel 2 when a structure is built on it.

2. PROJECT VEGETATION (FUELS)

For wildfire planning purposes the vegetation is classified as follows:

- (a) ground fuels- annual grasses, chamise and manzanita
- (b) overstory- Gray pines, Ponderosa pines, liveoaks, and white oaks

The flashy ground fuel loading has been greatly reduced throughout the property. The heavy brush has been mostly removed and ground fuel sprouts are coming back. The problem of fuel laddering is present. Gray pines are extremely hazardous due to a fire ignition and sudden deterioration. These trees and the ground fuel set up a highly flammable situation. Protection of the oak overstory is very important. Limbing up of trees is essential.

3. PROBLEM STATEMENTS

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

Fire in the ground fuels on the slopes is the most serious wildfire problem for this project.

B. A percentage of the project has moderate slopes, which increases the rate of wildfire spread.

Wildfires rate of spread increases dramatically as slope increases. This project has moderate grassy slopes.

C. Risk of fire starts will increase with development.

The greatest risk from fire ignition will be along roads, in the open space areas and on large lots as human use on these areas increase.

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 Wildfire Fire Safe Plan places emphasis on defensible space around structures.

The project will create three ten acre parcels. The first parcel is the primary residence of the applicant. The existing driveway will have a new driveway to provide access the new house. A new driveway and home-site will be built on the Parcel 2. A private fire hydrant/standpipe with a 2 1/2 inch National Hose Thread (NST) connection and a 2,500 gallon water tank will serve Parcel 3. The standpipe shall be accessible to the fire agencies along the new driveway. Parcel 2 shall also have water storage and standpipe connection when a new structure is built. A NFPA 13D residential fire sprinkler system shall be required for this new structure when built. The minimum size tank will be determined at the time of installation. (See Water Storage Tank Schematic)

Water storage for fire protection and domestic use can have a common tank. If this is to occur the following plumbing configuration shall be adhered to:

- Water for residential fire sprinklers shall be plumbed from the bottom of the tank.
- Water for fire protection shall be plumbed above the water level necessary to meet the fire sprinkler demands.
- Water for domestic use shall be plumbed above the maximum fire protection water level.
- Tank size shall be based on a minimum of 2,500 gallons of water for fire protection. Capacity shall be increased if fire sprinklers and domestic use are included.

All standpipes shall not be closer than 50 feet nor more than 150 feet from the residence. There shall be 20 pounds of residual pressure at the standpipe valve. The local fire

department should be contacted for actual standpipe placement. All plumbing from the tank to the standpipe shall be at least 2 ½ inches in diameter. All external plumbing shall be provided with freeze protection.

The swimming pool at the Thorne residence provides emergency water that can be used. Due to its location, access and height above ground it is not readily available for use to the other parcels and can be extremely difficult to use.

Jayhawk Road shall be widened from Deer Valley Road to the intersection with the Thorne driveway. The traveled road surface shall be a minimum of 20 feet. The road surface needs to be all weather and capable of supporting a 40,000 pound emergency vehicle. Jayhawk along the edge of Parcel 2 has been widened and is satisfactory.

A fuel treatment zone along Jayhawk Road shall be established. It will be 10 feet wide from the road edge. Zones shall also be along both sides of the driveways. Fuel treatment zones shall be kept free of flammable brush (See Appendix B). Annual grasses in the zones shall be treated annually by June 1. Grass should not exceed 2 inches in height after treatment. It is extremely important that the grass and other flammable fuel be kept away from the vinyl fencing. It is recommended that no additional vinyl fencing be used since it is toxic when burned and adds fuel to a fire when it melts. Trees within the zone shall be limbed at least 8 feet above the ground. Tree canopy hanging over the roadway shall be at least 15 feet above the road.

Pruning of the oak trees to raise the canopy level is important. All limbs hanging within 8 feet of the ground need to be trimmed off to provide adequate clearance under the trees. The separation of the ground fuel and tree limbs minimizes the chances for fire to get into the tree canopy. Landscaping of the yards will also reduce the potential fire threat from the wildland.

State Fire Safe clearance requirements (PRC 4291) shall be adhered to by all the structures and water storage tanks. See the attached CDF Guideline for fire safe clearance. A 30 foot setback from the property line is expected for each new structure.

The new driveway to the residence on Parcel 3 shall conform to the mitigation measures listed below. The driveway measurement starts at the intersection of the parcel and Jayhawk. The driveway requirements on Parcel 2 shall be determined at the time of construction.

Mitigation Measures:

- **Lots shall be landscaped to Firescaping Standards Zones I and II (100' or to the property line).**
 - a. **Responsibility- homeowner at the time of construction**
- **All homes shall have Class A listed roof assembly and siding of fire resistant material.**
 - a. **Responsibility- homeowner**
- **Roof eaves shall be enclosed and vents shall be horizontal to the ground with non-combustible wire mesh with openings no more than 1/8 inch.**
 - a. **Responsibility- builder**

- Roof and attic vents shall be protected by corrosion resistant non-combustible wire mesh with openings no greater than 1/8 inch.
 - a. Responsibility- builder

6. **OTHER FIRE SAFE REQUIREMENTS**

- A. A Notice of Restriction shall be filed with the final map which stipulates that a Wildfire Fire Safe Plan has been prepared and wildfire mitigation measures shall be implemented.
- B. A copy of the Wildfire Fire Safe Plan shall be provided to all new landowners.
- B. 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.
- C. The homeowner/property owner is responsible for any future fire safe or building code changes adopted by the State or local authority when a new building permit is issued.
- D. All driveways shall be a minimum of 12 feet wide.
- E. Driveway gates shall be inset on the driveway at least 30 feet and be 2 feet wider than the driveway. Contact Rescue Fire Protection district for gate/opener specifications.
- F. Driveways over 800 feet shall have turnouts at least every 400 feet of driveway. (See Diagram A)
- G. Driveways over 150 feet but less than 400 feet long shall have a turnout at or near the midpoint of the driveway.
- H. All driveways over 300 feet long shall have a fire department approved turnaround within 50 feet of the residence.
- I. Jayhawk Road shall be 20 feet wide of traveled road surface, excluding ditches, and shall have a 10 foot fuel treatment zone on both sides of the roadway.
- J. All driveways and fire department accesses shall have all weather surface that is capable of supporting a 40,000 pound emergency vehicle.

F. **Appendix**

Appendix A

THORNE PARCEL 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.

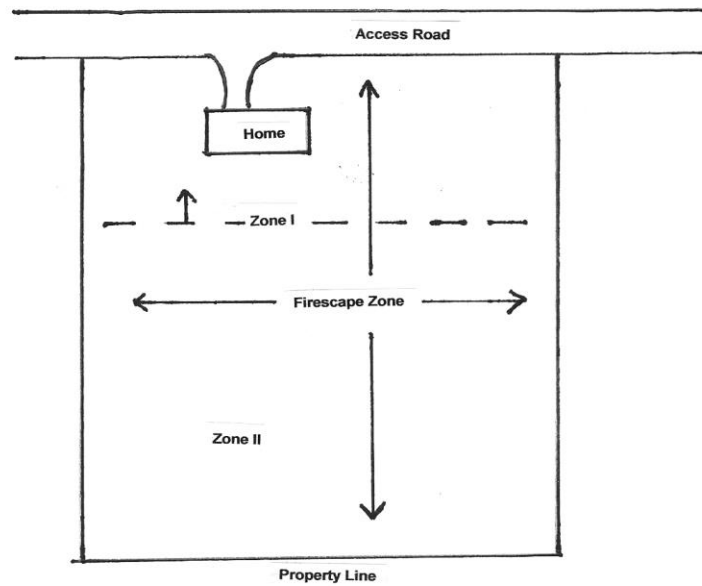
Zone I

The zone extends to not less than 30 feet from the house **or to the property line** 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 1 inch in diameter) are 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 produce only small amounts of litter and retain high levels of moisture in their foliage year around. Native and exotic trees are permitted inside the Zone except for Gray pines, 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 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 the remaining undeveloped area of the lot to Zone I, extends from the house in all directions 100 feet or **to the property line** and is a transition area to the outlying vegetation. The zone is a band of low growing succulent and 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 are removed. Annual grasses are mowed after they have cured to a 2 inch stubble by June 1, annually. Native trees and brush species are preserved and pruned of limbs up to 8 feet above the ground as measured on the uphill side. Gray pines are not permitted to remain in this zone.

**APPENDIX A-1
FIRESCAPING ZONES
EXHIBIT**



Typical Lot in Oak Woodland
(schematic, no scale)

APPENDIX B

THORNE PARCEL SPLIT

FUEL TREATMENT SPECIFICATIONS

For

OAK WOODLAND VEGETATION

Within The Designated Fuel Treatment Areas

1. Leave all live trees **EXCEPT** Gray pines.
2. Remove all dead trees.
3. Remove all brush.
4. Prune all live trees of dead branches and green branches 8 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 Live Oak trees: remove all dead limbs and stems, cut off green limbs at 8 feet above the ground as measured on the uphill side that arch over and are growing towards the ground.

WATER STORAGE TANK (SCHEMATIC)

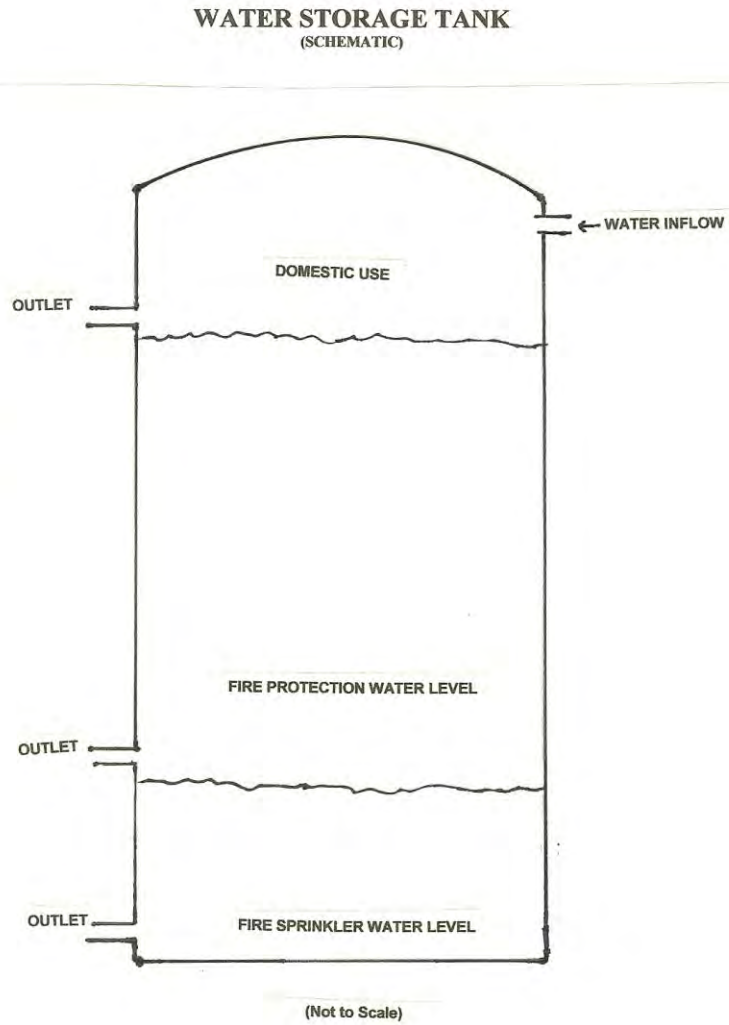
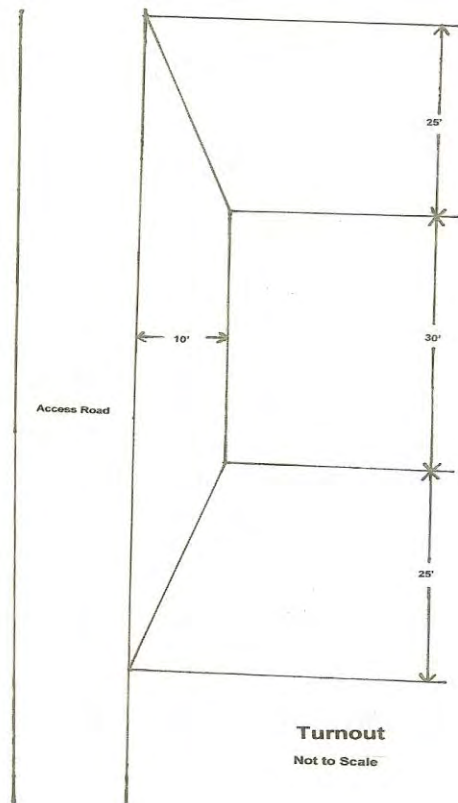
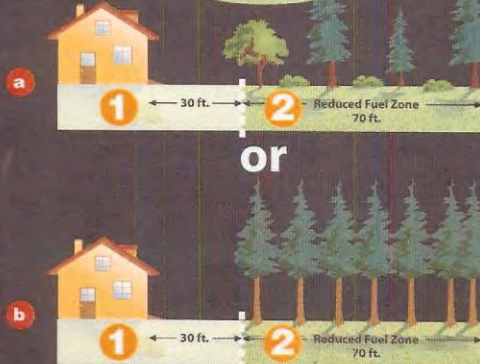


DIAGRAM A DRIVEWAY TURNOUT



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 2006

MAP A

