

# WILDFIRE MITIGATION PLAN

For Winston Davis and Susan Carrell  
140 Arrowwood Dr, Allenspark, CO  
Docket: SPR - 07 - 136  
Inspection date: 5/6/2008

**Colorado  
State**  
FOREST  
SERVICE  
Boulder District  
5625 Ute Highway  
Longmont, CO 80503  
(303) 823-5774  
FAX: (303) 823-5768

## Prepared for:

Winston Davis and Susan Carrell  
4647 S. Marquette Ct.  
Springfield, MO 65804  
Phone: 417-882-3960

## Prepared by:

Matthew Jedra  
Forester - Boulder District  
Phone: (303) 823-5774  
E-mail: mjedra@lamar.colostate.edu

## PURPOSE OF A WILDFIRE MITIGATION PLAN

The purpose of a Wildfire Mitigation Plan is to give guidelines for reducing wildfire hazards around a home or other structures through fuels reduction. It is a document to inform urban interface home owners of the dangers and responsibilities of living in the interface. This plan will help outline the initial and ongoing fuels reduction needed to create and maintain an effective wildfire defensible space. However, having a wildfire mitigation plan, implementation of a defensible space thinning, and following all the recommendations as outlined in this plan **does not guarantee that your home will survive a wildland fire; however, in combination they will give your home the best potential probability to survive a wildland fire.**

## SITE LOCATION AND PROPERTY DESCRIPTION

The property is located in Section 36, Township 3N, and Range 73W, Lot 10 of Arrowwood subdivision, Boulder County, Colorado. The property is located within the Allenspark Fire Protection District (303-747-2586). A 3,328 sq.ft. residence is proposed for the site. The lot is 1.42 acres in size and has a modest ~5-40 percent slope with a northwest aspect. The site is at ~8,380 feet in elevation and located on a mid-slope which is relatively moist. Arrowwood Dr and Hwy 7 to the north create a small natural barrier that may help slow the spread of a surface fire on the site.

## CONSTRUCTION DESIGN AND MATERIALS

The proposed residence and attached garage will have a moderately complex design with a moderately complex roofline and will be oriented with a north aspect. **The overall design of the structure greatly influences how it will withstand a wildfire. Complex building forms create heat traps, areas where the walls and roof members intersect on another where eddies form and hot air and embers from a fire can collect. It is important to keep these areas clear of combustibles such as needles and brush.**

The roofing material will consist of class-A laminated asphalt shingles. **Falling embers and fire brands from a wildfire can land on a roof and ignite the roof, either by directly heating the roofing material, or by igniting light fuels (pine needles) that have collected on the roof. It is recommended to place screening over gutters and/or make a yearly check to keep them clear of leaves and needles.**

The exterior wall material is to be cement board. Soffits and fascia are to be ¾" thick plywood. The structure will have 27 medium to large sized windows with the primary viewing direction being toward the west and north side of the structure. Windows will be double glazed with Low-E coating and tempered glass where required. Frames are to be made of wood or aluminum clad wood. Exterior doors are to be 1¾", fire-rated, and made of wood. The structure will have 1 sliding glass doors located on the south side of the structure. **All operable windows must be provided with screening that is constructed of either aluminum, galvanized steel, copper or of an approved material that when exposed to flame for 15 seconds, will not burn through or melt, and remains intact. Windows are one of the weakest parts of a structure with regards to wildfire. They often crack and fail before the structure itself ignites, providing a direct path for embers and radiant heat to reach the interior. It is best to minimize the number of windows, especially on the downhill side of the structure. Fire typically burns up hill faster and will create a great deal of radiant heat.**

A deck will be constructed of trex decking material with 6" timber posts. The deck will be open overhead and underneath. The deck will have a buffer material of crushed gravel on top of a non-combustible polyester weed barrier. **Decks must be kept clean and free of combustible materials. Keep debris such as pine needles, wood, and vegetation away from your deck. Each year rake pine needles and other combustible material from underneath decks and overhangs.**

## UTILITIES

The propane tank is to set on a pad of crushed rock overlaying a weedbarrier ~25 ft west of the residence. Utilities for the property are buried from a pole ~162 ft. north of the residence. The septic field is located ~90 ft. south of the residence. The water for the residence is from a main line.



## DRIVEWAY ACCESS FOR EMERGENCY VEHICLES

Access the property from Boulder by heading north on 36 to the town of Lyons, head west on Hwy 7 to Arrowood Dr. Emergency evacuation from this property is dependent on the location of a fire at a given time. Two main evacuation routes could be west on Hwy 7 towards Estes Park or east on Hwy 7 to the town of Lyons.

The new driveway will create a significant amount of site disturbance and soil compaction and will require the removal of few trees. The driveway is ~12 feet wide with a vertical clearance of 13'6" and a grade that is less than 12 percent. The driveway is approximately 243 ft long therefore no turn around will be required. However, a hammerhead or "Y" turnout is highly recommended within 50 feet of the residence. Since the driveway is less than 400 ft., no pull-outs are required along the driveway however, an emergency pullout is recommended.

## EMERGENCY WATER SUPPLY FOR FIRE FIGHTING

The water source will be from a 3,600 gallon cistern will be located ~67 ft. north of the residence. The cistern should have a dry hydrant connection with a 6 inch NH thread connection and cap (note that a 2 ½" adapter may be needed, depending on your fire protection district). The residence will be making a donation to the community fire cistern. Contact the Allenspark Fire Protection District (303-747-2586) for more information and specific details.

## FUELS REDUCTION

All trees to be removed are marked with blue spray paint. All trees that are to remain within zones 1 and 2 will be unmarked and need to be pruned to a height of 6 ft or 1/3 the height of the tree, whichever is less. If the property is less than 1 acre it may not have zones marked due to boundary interference. Harvested wood that remains on site will be stacked at least 30 feet from the house and at the same elevation when possible. Slash from the harvest will be hauled off site or chipped. Note that if you decide to burn piles, you must obtain a valid Open Burning Permit from the Boulder County Environmental Health Department (303-441-1180) and notify your local fire protection district Allenspark Fire Protection District (303-747-2586).

## FOREST COMPONENT AND HEALTH

The site has a dominant overstory consisting of Douglas fir (*Pseudotsuga menziesii*) with a Douglas fir, ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta*) and quaking aspen (*Populus tremuloides*) component. The understory consists of a dense/sparse cover of native grasses, forbs, and shrubs. The forested area is best represented by Fuel Model 9. Fuel Model 9 is represented by closed canopy stands of ponderosa pine and mixed conifer. Understory may consist of small trees and shrubs, grasses and moderate concentrations of down, dead woody litter. High amounts of needle litter may be present. This model can exist from foothills to subalpine.

There were no current signs of insect or disease problems on the property at the time of the inspection.

## DEFENSIBLE SPACE MANAGEMENT

There are three defensible space zones to be created around the structure(s) on the site. Please note that it is possible that one or more of these zones will cross over the subject property onto adjacent properties. Property boundaries must be respected; mitigation work is not required beyond immediate boundaries. However, landowners are encouraged to contact and work with neighbors if property lines limit the ability to mitigate within the prescribed area. **Defensible space is a benefit, not only to the individual but also to the community as a whole.**

**Zone 1** - Starts at the foundation and extends out 15 feet in all directions from the outside edge of the structure(s). Zone 1 is broken down into three segments:

**Zone 1A** - Consists of the structure(s) themselves and the area immediately adjacent to and surrounding the structure(s) on all sides. A five-foot wide, non-flammable strip should be created using crushed gravel over a polyester weed barrier material. This strip will also extend back under, and out to, two feet past the drip line of any decks.

**Zone 1B** - Extends out from Zone 1A. In this zone, all highly flammable vegetation should be removed. Any large dead woody material on the ground should also be removed. Firewise plants should be used for landscaping and re-vegetation. Grasses should be irrigated when possible and mowed to a maximum height of 6 to 8 inches twice per growing season to a distance of 30 feet from the structure.

**Zone 1C** - This zone extends out from Zone 1B to 15 feet from the house. All understory trees (ladder fuels) should be removed as marked. These are small seedling and sapling size trees that can be ladders for fire to get in the crowns of the larger trees. A few of the larger, healthy trees can to be retained for screening. All



remaining trees in this zone should be pruned to a height of 10 feet. They must be well spaced so that the crowns are not touching (10 foot minimum crown spacing). No trees should overhang the house or decks, unless approved by Boulder County or CSFS as "part of the structure" with additional fuels reduction around those trees to insure the defensible space integrity. Trees should be at least 15 feet away from the house on all sides, and a minimum of 20 feet from chimneys.

**Zone 2** - This zone extends out from Zone 1C, and acts as a transition zone between the heavily thinned areas near the house to the existing forest setting. It extends down slope between 100-170 feet depending upon slope steepness. Zone 2 also extends on either side of the structure a minimum of 100 feet and behind the house between 70-100 feet assuming no boundary restrictions. Tree spacing begins as in Zone 1C and gradually decreases as you approach the outer edge of the zone. Thinning and crown spacing becomes greater in areas of steep slopes. Ladder fuels and poor quality, suppressed and/or diseased trees, 6 to 8 inches in diameter, make up the majority of the removals. The remaining mature trees should be pruned to a height of 10 feet at the intersection of Zones 1 and 2 with limbing reduced in height to 6 feet as you approach Zone 3. If there are any questions pertaining to slope and the changes in thinning spacing and distance regulations please refer to <http://www.ext.colostate.edu/pubs/natres/pubnatr.html> and find the *Quick Facts 6.302 Creating Wildfire Defensible Space*.

**Zone 3** - This zone extends out from Zone 2 to the edge of the property. It may extend out to areas that are not part of the immediate mitigation efforts. In this zone, a few thicker clumps of trees are acceptable, as well as some unpruned trees near the outer edge. Thinning in this zone adds some protection, but is aimed more at forest health. Trees that are of poor quality or form, or have insect or disease infestations, should be removed. Slash in this zone can be lopped and scattered and/or piled for wildlife use.

- Thin suppressed trees and trees with disease and insect infestations and retain the larger, healthier trees.
- Snags can be retained for wildlife.
- Some slash in this zone can be lopped and scattered and/or piled for wildlife enhancement and shelter.
- Large amounts of slash should be disposed of by chipping, hauling to an approved site, or burning.
- For burning permits, check with your local fire protection district.

#### **MAINTENANCE AND RECOMMENDATIONS**

As detailed in fact sheet 6.302, *Creating Wildfire Defensible Zones*, an important factor that determines a structure's ability to survive wildfire is defensible space. Defensible space is a maintained area around a structure where fuels (flammable materials) are modified to slow the possible spread of wildfire to the structure, as well as from the structure to the surrounding areas. Defensible space provides a place where structure protection and fire suppression operations may occur. Wildfire hazard mitigation work breaks up fuel continuity, potentially decreasing a wildfire's intensity, and for more effectiveness should be completed beyond a home's defensible space, zone 1 and 2, area into zone 3.

In addition to the above recommendations, several other measures can be taken to make your home more fire safe and add an additional measure of safety for your family. While not required through site plan review, the following measures should be undertaken to maintain the home and defensible space in the future.

- Maintain your defensible space yearly; contact your local forester for a 5-year maintenance inspection
- Establish an escape route and safety zone with the aid of your local fire protection district
- Keep firewood at least 30 feet away from buildings; clear weeds and grass from around pile
- Do not stack fresh cut wood against live trees – this could invite unwanted insects
- When possible, maintain an irrigated green space; mow grasses 6" to 8" high
- Connect, and have available, a minimum of 50 feet of garden hose with an adjustable nozzle
- Have an emergency evacuation plan in place (included in wildfire mitigation plan)
- Be aware of fire danger; your nearest fire danger sign is located at your fire station or check the Boulder Fire Weather website at [www.crh.noaa.gov/bou](http://www.crh.noaa.gov/bou)
- Keep driveways and property address marked with reflective easy to see signs
- Maintain screens on foundations, soffit vents, roof vents, and attic openings
- Get rid of unnecessary accumulations of debris and trash from yards
- Keep tools such as shovels, rakes, ladders, and axes available and ready for use
- Clean debris from the roof and gutters at least two times annually
- Check screens and maintain spark arresters on chimneys annually
- Avoid storing combustibles under decks such as wood piles, scrap lumber, and fuels



## **DEFINITIONS**

**Aspect** – Exposure. The direction a slope faces.

**Canopy** – The cover of branches and foliage formed collectively by crowns of adjacent trees.

**Crown** – Branches and foliage of a tree.

**Dominant fuel type** – Matter that would carry a fire, found on the ground.

**Duff** – a layer of accumulated dead organic matter (pine needles).

**Eddies** – Small wind occurrences that are separate from normal wind flows.

**Fuel Model** – A number system that identifies the types of fuels found on the property that will directly influence fire behavior.

**Fire danger** - An assessment of both fixed and variable factors of the fire environment, which determine the ease of ignition, rate of spread, difficulty of control, and the fire impact.

**Fire hazard** - The potential fire behavior for a fuel type, regardless of the fuel type's weather-influenced fuel moisture content or its resistance to fireguard construction. Assessment is based on physical fuel characteristics, such as fuel arrangement, fuel load, condition of herbaceous vegetation, and presence of elevated fuels.

**Fire management** - The activities concerned with the protection of people, property and forest areas from wildfire and the use of prescribed burning for the attainment of forest management and other land use objectives, all conducted in a manner that considers environmental, social and economic criteria.

**Fire risk** - The probability or chance of fire starting determined by the presence and activities of causative agents.

**Fuel continuity** – The proximity of fuels to each other. Helps determine if a fire can sustain itself.

**Forest health** - A forest condition that is naturally resilient to damage; characterized by biodiversity, it contains sustained habitat for timber, fish, wildlife, and humans, and meets present and future resource management objectives.

**Ladder fuels** - Fuels that provide vertical continuity between the surface fuels and crown fuels in a forest stand, thus contributing to the ease of torching and crowning.

**Limb** (verb) –To remove the branches from a tree.

**Noxious weeds** - Any weed so designated by the Weed Control Regulations and identified on a regional district noxious weed control list.

**Overstory** – The tree species that forms the uppermost forest layer (dominant and co-dominant).

**Slash** – The residue left on the ground as a result of forest and other vegetation being altered by forest practices or other land use activities.

**Snag** – Standing dead tree, often used by wildlife such as woodpeckers, owls, and other various mammals.

**Understory** – Plants that grow underneath the overstory species.

**Wildland urban interface** – a popular term used to describe an area where various structures (most notably private homes) and human developments meet or are intermingled with forest and other vegetative fuel types.





## **Annual Fire Safety Checklist**

- Thin trees and brush properly within defensible space.
- Remove trash and debris from defensible space.
- Remove needles and pine cones from window wells.
- Remove trees growing through a porch or other portions of a structure.
- Clear leaves and debris from the roof and gutters of structures.
- Remove branches that overhang a chimney or roof.
- Stack firewood uphill from a home or on a contour away from the home.
- Use noncombustible roof materials.
- Place shutters, fire curtains or heavy drapes on windows.
- Place screens on foundation and eave vents.
- Enclose sides of stilt foundations and decks.
- Remove any combustibles from under decks, porches or entrances ways.
- Use a chimney screen or spark arrester in fireplaces.
- Clear vegetation from around fire hydrants, cisterns, propane tanks, etc.
- Place placards on garages if storing flammable materials inside.
- Make sure that an outdoor water supply is available with a hose, nozzle and pump.
- Post address signs that are clearly visible from the street or road.
- Make sure that driveways are wide enough for fire trucks and equipment.
- Check with appropriate highway agencies to make sure load limits are posted on bridges and for the appropriate protocol for posting load limits for bridges on private property.
- Install and test smoke detectors.
- Practice a family fire drill and evacuation plan.

## **Evacuation Tips**

- If a wildfire is threatening your area, listen to the radio for updated reports and evacuation information.
- Confine pets to one room and make plans to take care of them in the event of evacuation.
- Arrange for temporary housing with a friend or relative whose home is outside the threatened area. Leave a note in a prominent place in your home that says where and how you can be contacted.
- If your home is threatened by wildfire, you will be contacted and advised by law enforcement officers to evacuate. If you are not contacted or you decide to stay and help defend your home, evacuate pets and family members who are not needed to protect your home.
- Remove important documents, mementos, etc. from the possible fire area.
- Choose an evacuation route away from the fire if possible. Watch for changes in the speed and direction of the fire and smoke.

Take a disaster supply kit containing:

- Drinking water.
- A change of clothing and footwear for each family member.
- Blanket or sleeping bag for each person.
- First-aid kit and prescription medications.
- Emergency tools including a battery-powered radio, flashlight and extra batteries.
- Extra set of car keys and credit cards, cash or traveler's checks.
- Extra pairs of eyeglasses or other special items for infants, elderly or disabled family members.



## **Defending Your Home**

Whether you choose to stay to defend your home or to evacuate, complete as many of the following preparations as possible.

- **DO NOT JEOPARDIZE YOUR LIFE. NO MATERIAL ITEM IS WORTH A LIFE.**
- Wear fire-resistant clothing and protective gear.
- Remove combustible materials from around structures.
- Close or cover outside vents and shutters.
- Position garden hoses to reach the entire house, but do not turn the water on until it is needed. Hoses should have an adjustable nozzle.
- Place large, full water containers around the house. Soak burlap sacks, small rugs or large rags in the containers.
- Place a ladder against the roof of the house on the opposite side of the approaching wildfire. Place a garden hose near the ladder, prepared as described previously.
- Place portable pumps near available water supplies, such as pools, hot tubs, creeks, etc.
- Close all windows and doors. Do not lock them.
- Close all inside doors.
- Turn on a light in each room and all outside lights. Leave them on even during daylight hours.
- Fill tubs, sinks and similar containers with water.
- Shut off gas supplies to structures at outside meters. Shut off propane supplies at the outside meter of the tank.
- Remove curtains made of lace, nylon or other light materials. Close blinds, heavy drapes and fire resistant window covers.
- Move overstuffed furniture into the center of the house, away from windows and sliding doors.
- Cars should be parked in the garage, facing out. Close the windows of the vehicle but do not lock the doors. Leave the keys in the ignition.
- Close the garage door but leave it unlocked. Disconnect automatic garage door openers.

For additional copies of these checklists, visit [www.colostate.edu](http://www.colostate.edu) and search for wildfire, view the Colorado State Cooperative Extension fact sheet at <http://www.ext.colostate.edu/PUBS/NATRES/06304.html>, or contact the local Cooperative Extension office usually listed under the county government section of your local phone book.

(Information provided by Colorado State University Cooperative Extension and the Colorado State Forest Service.)

## **Safety Zone Guidelines**

A Safety Zone is an area that in the event of a wildland fire you could survive the passing fire without the aid of a fire shelter. A natural safety zone could be an area already burned clean by the fire (in the black), rock areas where flashy fuels are absent, or large bodies of water. A manmade safety zones could be pre-constructed sites such as clear cuts. It should be close enough to your home to consider escape time to reach the safety zone. They should not be located upslope or downwind of the fire or in heavy fuels.

1. Avoid locations that are downwind from the fire.
2. Avoid locations that are in chimneys, saddles, or narrow canyons.
3. Avoid locations that require a steep uphill escape route.
4. Take advantage of heat barriers such as lee side of ridges, large rocks, or solid structures.
5. Burn out safety zones prior to flame front approach.
6. For radiant heat only, the distance separation between you and the flames must be at least four times the maximum flame height. This distance must be maintained on all sides, if the

fire has ability to burn completely around the safety zone. Convective heat from wind and/or terrain influences will increase this distance requirement.

### **Calculations Assuming No Slope and No Wind**

<u>Flame Heights</u>	<u>Distance separation</u>	<u>Area in Acres</u>
10 feet	40 feet	1/10 acre
20 feet	80 feet	1/2 acre
50 feet	200 feet	3 acres
75 feet	300 feet	7 acres
100 feet	400 feet	12 acres
200 feet	800 feet	50 acres

**Note:** Distance separation is the radius from the center of the safety zone to the nearest fuels. When fuels are present that will allow the fire to burn on all sides of the safety zone this distance must be doubled in order to maintain effective separation in front, to the sides, and behind the person.

Area in Acres is calculated to allow for distance separation on all sides for a three person family and a vehicle. One acre is approximately the size of a football field or exactly 208 feet x 208 feet.

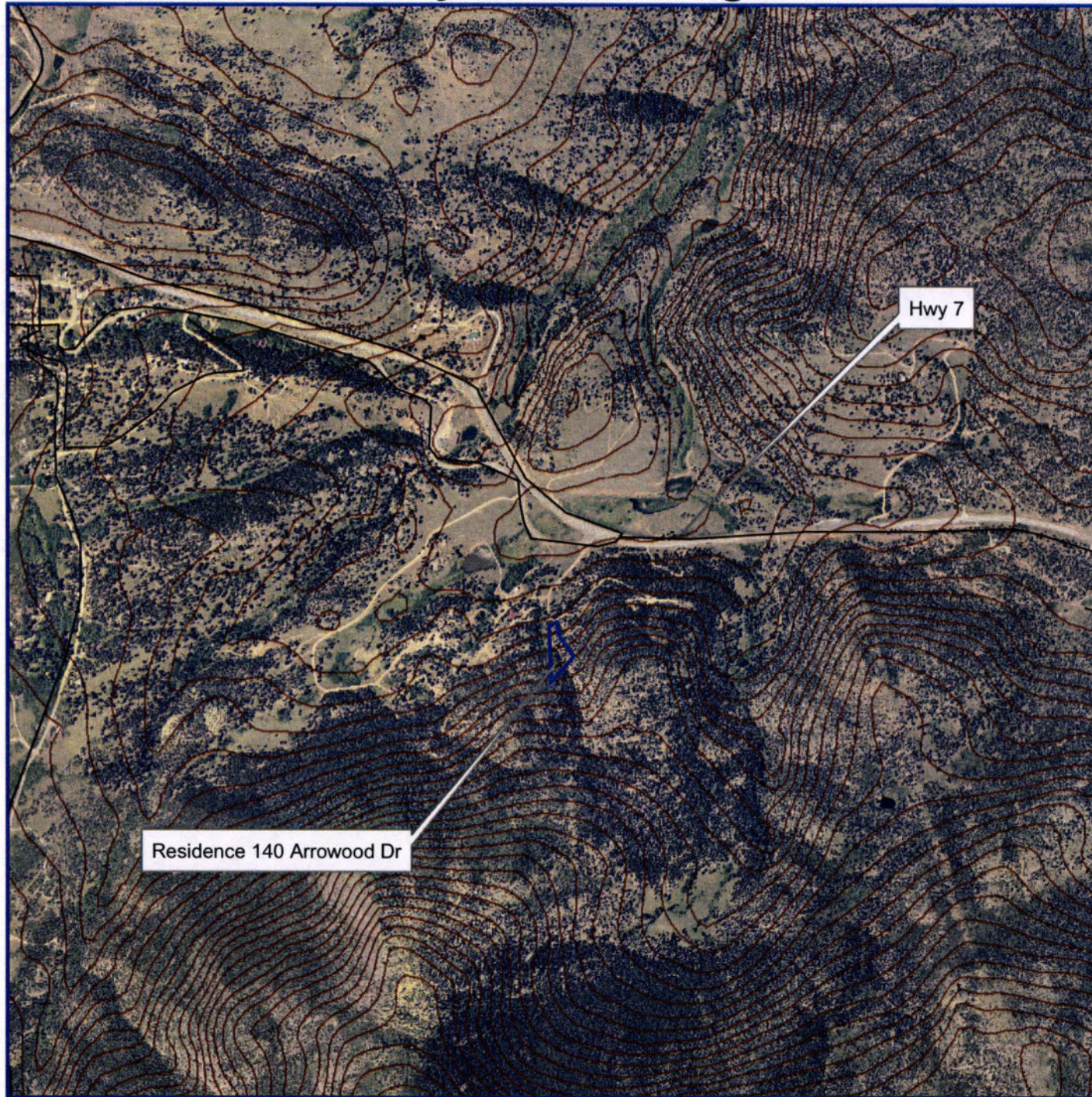
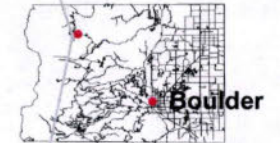
**Example:** Given a fire with 10 foot flame heights (no wind or slope). You would need a minimum of 40 feet between you and the flames. So your total safety zone should be 80 feet x 80 feet. If you are settled into the middle of the safety zone you will have a minimum distance of 40 feet to each edge of the zone.



# Boulder County Wildfire Mitigation Plan



Landscape view of the  
Winston Davis and  
Susan Carrell property  
140 Arrowood Dr  
Allenspark, CO  
SPR - 07 - 136



## Legend

— Property Boundary



0 350 700 1,400 2,100 2,800 Feet

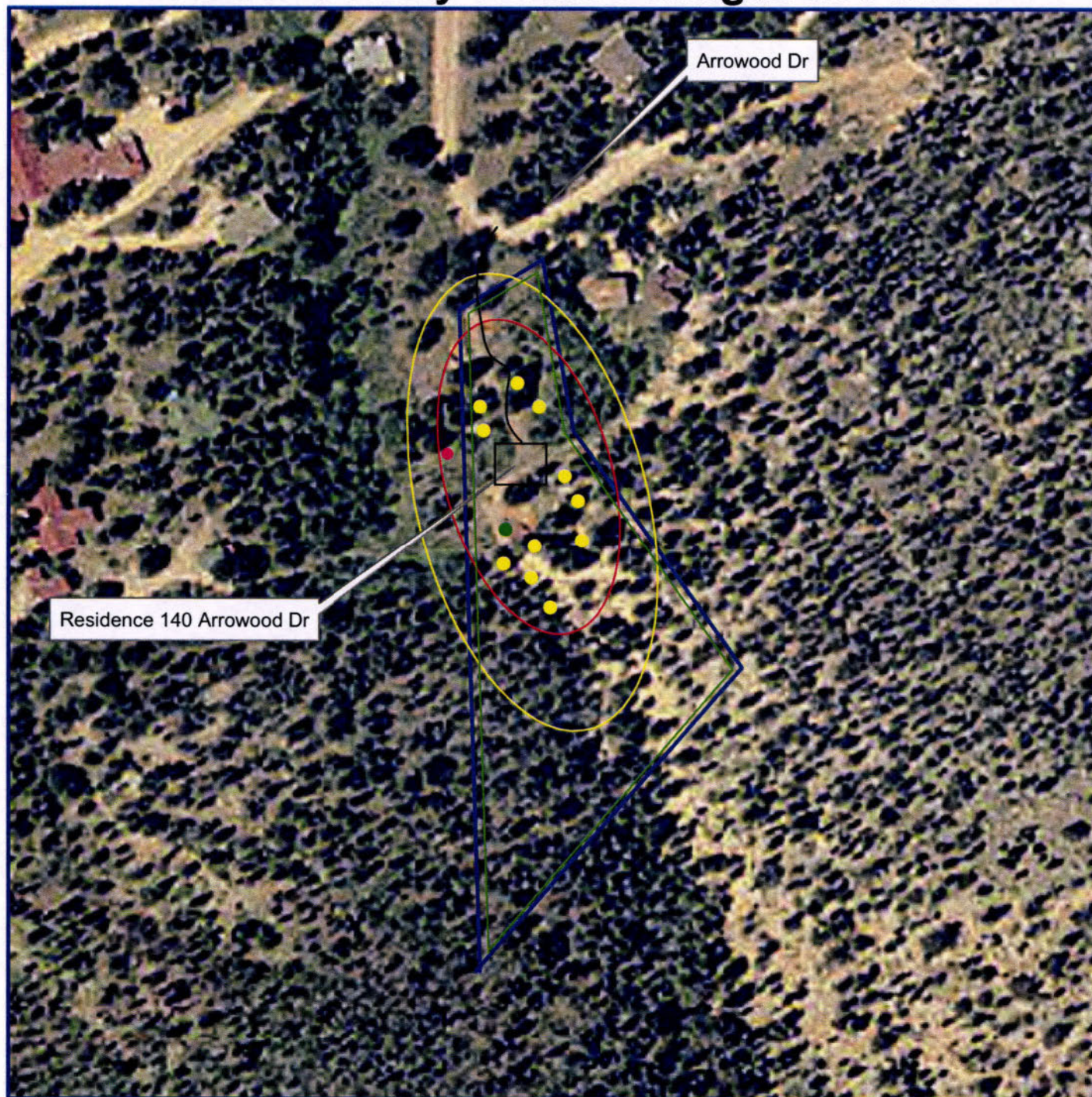
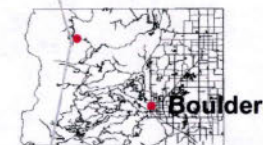
This map was produced from geospatial information from Boulder County and CSFS. All information represented is not completely accurate, and should be consider a draft document. This map should in no way serve as legal documentation of ownership.



# Boulder County Wildfire Mitigation Plan



Property of Winston Davis and  
Susan Carrell  
140 Arrowood Dr  
Allenspark, CO  
SPR - 07 - 136



## Legend

- Driveway
- Zone 1
- Zone 2
- Zone 3
- Leach Field
- Leave Trees
- Propane
- Property Boundary



0 30 60 120 180 240 Feet

This map was produced from geospatial information from Boulder County and CSFS. All information represented is not completely accurate, and should be consider a draft document. This map should in no way serve as legal documentation of ownership.



*Send Plug to drive,*  
*Wagner*  
*7 Days*

# FAX TRANSMITTAL

DATE: APRIL 23, 2008

FROM: Charles A. Phillips, III  
P.O. Box 1106  
Estes Park, CO 80517  
(970) 586-1849

TO: MAT JEDRA  
% COLORADO STATE FOREST SERVICE  
FAX # (303) 823-5768

SUBJECT: WINSTON DAVIS / SUSAN CARRELL RESIDENCE  
WILDFIRE MITIGATION PLAN

COMMENTS: SQUARE FOOTAGE AS SUBMITTED FOR SPR:

MAIN FLOOR	1644 SF	THIS SQ. FTG INCLUDED EXTERIOR WALLS
BASEMENT	891 SF	
TOTAL	2555 SF	
ATTACHED GARAGE	773 SF	
DECK	498 SF	

REVISED SQ. FTG AS SUBMITTED TO THE BUILDING DEPT FOR  
PERMITS - EXCLUDING EXTERIOR WALLS AND ADDING  
ROOF OVERHANG OVER GARAGE DOORS:

MAIN FLOOR	1553 SF	3109
BASEMENT	841 SF	
TOTAL	2394 SF	
ATTACHED GARAGE	715 SF	
DECK	498 SF	
OVERHANG @ GARAGE	112 SF	

PLEASE CALL IF YOU HAVE ANY QUESTIONS

Total Number Of Pages 5, Including This Cover Page

3328



## Colorado State Forest Service Wildfire Mitigation Plan Data Form

**Colorado  
State  
Forest  
Service**  
Boulder District  
5625 Ute Highway  
Longmont, CO 80503  
(303) 823-5774  
FAX: (303) 823-5768

Please be specific. Fill out the data form as completely and as accurately as possible, do not leave any blanks. Leaving blanks can delay the process of your wildfire mitigation plan. You may email it to Matthew Jedra at [mjedra@lamar.colostate.edu](mailto:mjedra@lamar.colostate.edu) or fax it to 303-823-5768, or bring it to the scheduled appointment.

The cost of the Wildfire Mitigation Plan is \$300.00. An invoice will be included when you receive the plan. Payment is due within 30 days from the date of the invoice. Any **Bolded** categories will be filled in by the Colorado State Forest Service (CSFS) representative at the time of initial site visit. If you have any questions about this form please contact Matthew Jedra at 303-823-5774.

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Inspection Date: MAY 5, 2008  
Landowner name: WINSTON DAVIS & SUSAN CARRELL  
Mailing address: 4647 SO. MARQUETTE CT.  
City, State, Zip: SPRINGFIELD, MO 65804  
Site address: 140 ARROWOOD DR.  
Phone number: (417) 882-3960  
Road access: (Directions from main access road)  
HIGHWAY 7 TO ARROWOOD DR.

Docket number: SPR-07-136 (SPR, SPRW, LU, Etc.)  
Section: 36  
Township: T3N  
Range: R73W  
Legal Description:  
LOT 10 ARROWOOD SUBDIVISION  
COUNTY OF BOULDER, STATE OF COLORADO  
Elevation: 8380' (feet)



Lot size: 1.42 (Acres)

Driveway length: 243' (Actual length in feet from road to home)

Driveway trees removed: ? (few/many/none)

House design: MODERATE (moderately complex - any shape with a few alcoves or complex - any shaped with a number of alcoves complex design)

Home buffer material: stone/crushed gravel/decorative stone (Material that is spread 5 ft. wide around the house -

Roof Design: (moderately complex/complex)

Roof material: (Class A- Asphalt shingles/concrete tiles/metal (wood roof is not permitted in Boulder County))

Soffit type and thickness: (3/4" Plywood or 3/8" hardboard/cement board)

Siding material: (Cement/hardboard/log/stucco/stone/wood - wood siding is not permitted on high hazard sites)

Windows (#): 27 (number of windows in the structure)

Window Size: M - L (On average: small - <3x4', medium - 4x5', large <5x6')

Window Frames: ? (Wood or aluminum clad wood/ vinyl is not permitted on high hazard sites)

Window Aspect: WEST/NORTH/SOUTH (Dominant viewing direction)

Window Construction: ? (Low E- Coating/Tempered glass/etc...)

Window Wells: 0 (Number and location if present, these are windows that sit below ground level, usually in a basement)

Sliding Glass Doors: 1 (Location and Number)

Door Material: (Wood/steel/fiberglass/composite)

Deck material: TREX (type of composite materials, wood is not permitted)

Deck Description: OPEN (Enclosed deck/open deck/enclosed underneath/open underneath)

Deck support type: (Timber posts/logs/steel/concrete/decorative stone)



Deck buffer material: \_\_\_\_\_ (Crushed rock/gravel/decorative stone)

Deck weed barrier: \_\_\_\_\_ ? \_\_\_\_\_ (Fiberglass/polyester)

Number of Structures: 1 (All structures to be present, including sheds, garages and out buildings)

Existing Structures: 0 (House/barn/garage/etc.)

New Structure: RESIDENCE w/ ATTACHED GAR. (House/Barn/garage/new addition/etc...)

Structure Square feet: \_\_\_\_\_ (Total sq.ft. of structure - this must be accurate and match the sq.ft that you submitted for SPR, if it has changed, please specify)

Structure aspect: N (Dominant facing direction/view, N, S, E, W)

Utility Location: N - 102' (ELEC) (Pole/buried: Direction and distance from residence - N, S, E, W/20ft, 30ft, 40ft, etc...)

Detached Garage (if applicable): N/A (Total square feet)

Out buildings: N/A (Total square feet of any and all sheds, cabins, ect...)

Leach field: 5 - 90' (Direction and distance from residence - N, S, E, W/20ft, 30ft, 40ft, etc...)

Cistern size (if applicable): \_\_\_\_\_ (gallons - <2,000 sq.ft - 1,800 gal, >2,000 to 2,500 sq.ft - 2,400 gal., >2,400 gal. to 3,599 - 3,600 gal., and >3,600 full interior NFPA 13 D Sprinkler system per Boulder County)

Cistern Location: N - 67' (Direction and distance from residence - N, S, E, W/20ft, 30ft, 40ft, etc...)

Cistern Type: \_\_\_\_\_ (Domestic Cistern or Fire Cistern)

Making a donation to community cistern : \_\_\_\_\_ (Yes or No)

Have you talked to the local fire department : \_\_\_\_\_ (Yes or No)

Are you required to have a sprinkler system : \_\_\_\_\_ (Yes or No) (If your house/addition is greater than 3,600 sq.ft. you are required to have an a full interior NFPA 13 D Sprinkler system per Boulder County)

Water supply: PUBLIC WATER (Well or main line)



Well (if applicable): N/A (Direction and distance from residence - N, S, E, W/20ft, 30ft, 40ft, etc...)

Propane or natural gas: \_\_\_\_\_

Propane Tank location: w/15' 25' (Direction and distance from residence - N, S, E, W/20ft, 30ft, 40ft, etc...)

Slash disposal: ? (Chipped/hailed/burned/top-scatter)

Can you provide a map of utility locations for the property: \_\_\_\_\_ (e.g. location of propane, tank, leach field, well, cistern, etc. Yes or No)

Comments: \_\_\_\_\_

This part will be filled out by the CSFS inspecting forester

FPD: \_\_\_\_\_

Dominant fuel type: \_\_\_\_\_ (Grass/forbs/shrubs/slash/etc)

Dominant overstory: \_\_\_\_\_

Co-dominant overstory: \_\_\_\_\_

Fuel model type: \_\_\_\_\_

Aspect: \_\_\_\_\_ (Direction of slope)

Slope: \_\_\_\_\_ (Percent)

Building site: \_\_\_\_\_ (Chimney/saddle/valley/ridge/mid-slope)

Site moisture: \_\_\_\_\_

Natural fire barrier: \_\_\_\_\_

Insect & Disease Diagnosis: \_\_\_\_\_

Comments: \_\_\_\_\_



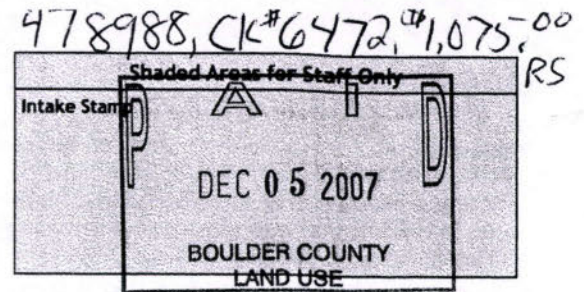


# Boulder County Land Use Department

Courthouse Annex Building  
2045 13th Street • PO Box 471  
Boulder, Colorado 80302

Phone: 303-441-3930 • Fax: 303-441-4856  
Email: [planner@co.boulder.co.us](mailto:planner@co.boulder.co.us) •  
<http://www.co.boulder.co.us/lu/>

Office Hours: Monday – Friday 8:00 AM to 4:30 PM



## Application Form

Project Number		Project Name	
* No Application Deadline	* Application Deadline: First Wednesday of the Month	* Application Deadline: Second Wednesday of the Month	
<input checked="" type="checkbox"/> Limited Impact Special Use <input checked="" type="checkbox"/> Site Plan Review <input type="checkbox"/> Site Plan Review Waiver <input type="checkbox"/> Subdivision Exemption <input type="checkbox"/> 1041 State Interest Review <input type="checkbox"/> Exemption Plat <input type="checkbox"/> Other:	<input type="checkbox"/> Variance <input type="checkbox"/> Appeal	<input type="checkbox"/> Preliminary Plan <input type="checkbox"/> Location and Extent <input type="checkbox"/> Resubdivision (Replat) <input type="checkbox"/> Road/Easement Vacation <input type="checkbox"/> Final Plat	<input type="checkbox"/> Road Name Change <input type="checkbox"/> Special Use/SSDP <input type="checkbox"/> Extension of Approval <input type="checkbox"/> Sketch Plan <input type="checkbox"/> Rezoning
Location(s)/Street Address(es) 140 ARROWOOD DR ALLEN SPARK, CO			
Subdivision Name ARROWOOD			
Lot(s) 10	Block(s)	Section(s)	Township(s)
Area in Acres 1.42 AC	Existing Zoning FORESTRY	Existing Use of Property VOLANT	Number of Proposed Lots 1
Proposed Water Supply LOCAL WATER SERVICE		Proposed Sewage Disposal Method SEPTIC	

## Applicants:

Applicant/Property Owner WINSTON DAVIS, SUSAN CARRELL		Email Address	
Street Address 4647 SO. MARQUETTE CT.			
City SPRINGFIELD	State MO	Zip Code 65804	Phone 417-882-3960
Applicant/Property Owner		Email Address	
City	State	Zip Code	Phone
Agent/Consultant		Email Address	
Street Address			
City	State	Zip Code	Phone
Agent/Consultant CHARLES A PHILLIPS III		Email Address	
City ESTES PARK	State CO	Zip Code 80517	Phone 970-586-1849

## Certification: (Please refer to the Regulations and Application Submittal Package for complete application requirements.)

I certify that I am signing this Application Form as an owner of record of the property included in the Application. I certify that the information and exhibits I have submitted are true and correct to the best of my knowledge. I understand that all materials required by Boulder County must be submitted prior to having this matter processed. I understand that public hearings or meetings may be required. I understand that I must sign an Agreement of Payment for Application processing fees and that additional fees or materials may be required as a result of considerations which may arise in the processing of this docket. I understand that the road, school, and park dedications may be required as a condition of approval.

I understand that I am consenting to allow the County Staff involved in this application or their designees to enter onto and inspect the subject property at any reasonable time, without obtaining any prior consent.

X All landowners are required to sign application. If additional space is needed attach additional sheet signed and dated.

Signature of Property Owner	Date 18 July 07
Signature of Property Owner Susan Carrell	Date 18 July 07
Other Signature	Date

\* Only if the Land Use Director waives the landowner signature requirement for good cause shown under the applicable provisions of the Land Use Code.





# Site Plan Review Fact Sheet

Each section of this Fact Sheet is required to be completed, even if the information is duplicated elsewhere in the application. Completed Fact Sheets cut application review time, and assist staff in expediting determinations. Please make duplicates of this page if the project involves more than two structures.

## Structure Information

**TYPE OF STRUCTURE:** Residence  
(e.g. residence, studio, barn, etc.)

**TOTAL EXISTING FLOOR AREA:** \_\_\_\_\_ sq/ft **DEMOLISH:** \_\_\_\_\_ sq/ft  
(Finished + Unfinished sq.ft. - always include garage if attached)

Is new floor area proposed in areas where demolition will occur?

Yes \_\_\_\_\_ No \_\_\_\_\_

If Yes, please be sure this area is included in the table below.

STRUCTURE #1:

PROPOSED FLOOR AREA (new construction only)			
	Finished	Unfinished	Total
Basement	1020 sq/ft	0 sq/ft	1020 sq/ft
1st Floor	1664 sq/ft	0 sq/ft	1664 sq/ft
2nd Floor	0 sq/ft	0 sq/ft	0 sq/ft
Garage			
<input type="checkbox"/> Detached			
<input checked="" type="checkbox"/> Attached	644 sq/ft	0 sq/ft	644 sq/ft
Covered Deck	0	0 sq/ft	0 sq/ft
<b>Total</b>	<b>3328 sq/ft</b>	<b>sq/ft</b>	<b>3328 sq/ft</b>

Height above existing grade 27'-0"

Exterior wall:  
- Material CEDAR

- Color \_\_\_\_\_

Roofing:  
- Material FIBERGLASS

- Color \_\_\_\_\_

When completed, this structure will have a total of 2 bedrooms.

## Project Identification

**Project Name:**

**Property Address/Location:**

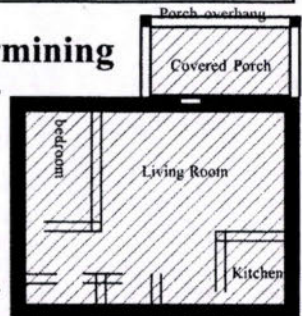
**Current Owner:**

**Size of Property in Acres:**

## Determining Floor Area:

**Area:**

Floor area is measured in terms of square



feet as everything within the inside of the outside walls and includes covered porches, garages and basements. The shaded area on the diagram above indicates the area counted as square feet.

**Please note:** If existing walls and/or roof are removed and new walls/roof are constructed, the associated floor area due to the new walls and/or roof is considered new construction and must be included in the calculation of floor area for Site Plan Review & shown on the Fact Sheet.

**If a Limited Impact Special Use Review is required,** then call 303-441-3930 and ask for a new Preapplication conference for the Limited Impact Review.

**This document prepared by:**  
Boulder County Land Use Dept.  
Courthouse Annex, 13th & Spruce St.  
PO Box 471; Boulder, CO 80306  
**Phone:** 303-441-3930  
**Fax:** 303-441-4856  
**Web Site:**  
<http://www.co.boulder.co.us/lu/>  
or <http://www.bouldercounty.us/lu/>  
**E-mail:** [planner@co.boulder.co.us](mailto:planner@co.boulder.co.us)

**Office Hours:**

Monday through Friday  
8:00 AM to 4:30 PM

STRUCTURE #2:

**TYPE OF STRUCTURE:** \_\_\_\_\_  
(e.g. residence, studio, barn, etc.)

**TOTAL EXISTING FLOOR AREA:** \_\_\_\_\_ sq/ft **DEMOLISH:** \_\_\_\_\_ sq/ft  
(Finished + Unfinished sq.ft. - always include garage if attached)

PROPOSED FLOOR AREA (new construction only)			
	Finished	Unfinished	Total
Basement	sq/ft	sq/ft	sq/ft
1st Floor	sq/ft	sq/ft	sq/ft
2nd Floor	sq/ft	sq/ft	sq/ft
Garage			
<input type="checkbox"/> Detached			
<input type="checkbox"/> Attached	sq/ft	sq/ft	sq/ft
Covered Deck		sq/ft	sq/ft
<b>Total</b>	<b>sq/ft</b>	<b>sq/ft</b>	<b>sq/ft</b>

Height above existing grade \_\_\_\_\_

Exterior wall:  
- Material \_\_\_\_\_

- Color \_\_\_\_\_

Roofing:  
- Material \_\_\_\_\_

- Color \_\_\_\_\_

When completed, this structure will have a total of \_\_\_\_\_ bedrooms.



## Earth Work / Grading

This worksheet is to help you accurately determine the amount of grading for the property in accordance with the *Boulder County Land Use Code*. Please fill in all applicable boxes.

Note that applicants must fill in the shaded boxes even though foundation work does not contribute toward the 500 cubic yard trigger requiring Limited Impact Special Use Review.

Also, note that all areas of earthwork must be represented on the site plan.

	Cut	Fill	Total
Driveway & Parking Areas	186.36 cy	123.90 cy	310.26
Berms			
Other Grading:			
Total			Box 1 310.26

If the total in Box 1 is more than 500 cubic yards, then a Limited Impact Special Review is required.

	Cut	Fill	Total
Foundation	358.75 cy	—	358.75 cy

Material cut from foundation excavation to be removed from the property. Excess material will be transported to the

following location: EXCAVATOR TO REMOVE EXCESS MATERIAL

241.21 cy

## Narrative

Use this space to describe any special circumstances that you feel the Land Use Office should be aware of when reviewing your application. If more room is needed, feel free to attach a separate sheet.

HOUSE & SEPTIC FIELD ARE LOCATED AS FAR DOWNSLOPE AS POSSIBLE GIVEN LOT CONFIGURATION & WELL LOCATIONS.

## Grading Calculation Note

Cut and fill calculations are necessary to evaluate the disturbance of a project and to verify that a Limited Impact Review (LU) is not required. A LU is required when grading for a project involves more than 500 cubic yards (minus normal cut/fill and backfill contained within the foundation footprint). If grading totals are close to the 500 yard trigger, additional information may be required, such as a grading plan stamped by a Colorado Registered Professional Engineer.

## Certification

I certify that the information submitted is complete and correct. I agree to clearly identify the property (if not already addressed) and stake the location of the improvements on the site within four days of submitting this application. I understand that the intent of the Site Plan Review process is to address the impacts of location and type of structures, and that modifications may be required. Site work will not be done prior to issuance of a Grading or Building Permit.

Signature

Date

18 July 07

Form: spr\_fact  
Revised: 6/21/06

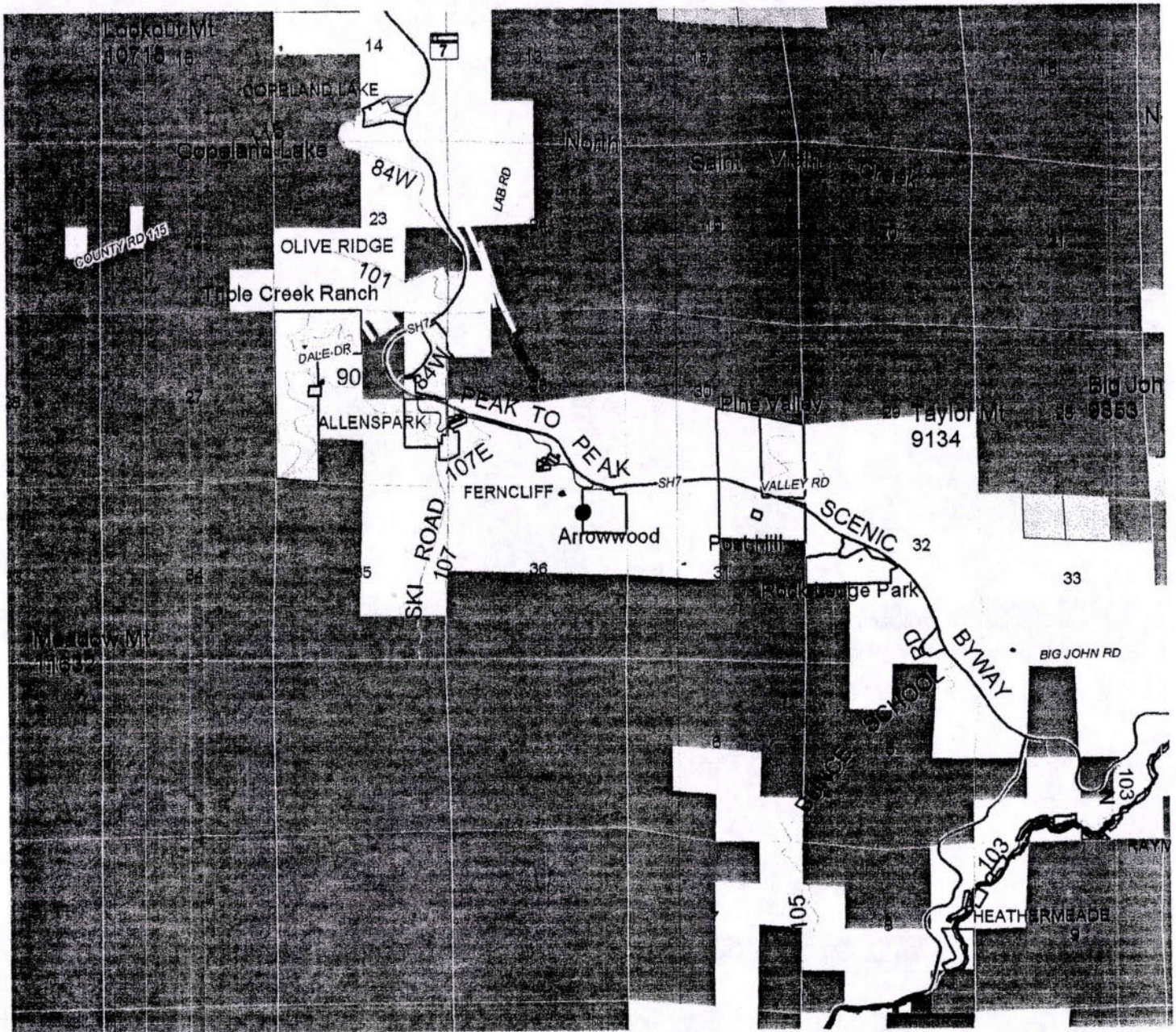
Is your property gated and locked? If

county personnel cannot access the property, then it could cause delays in reviewing your application.



# Boulder County

Land Use Department  
PreApp - Vicinity Map



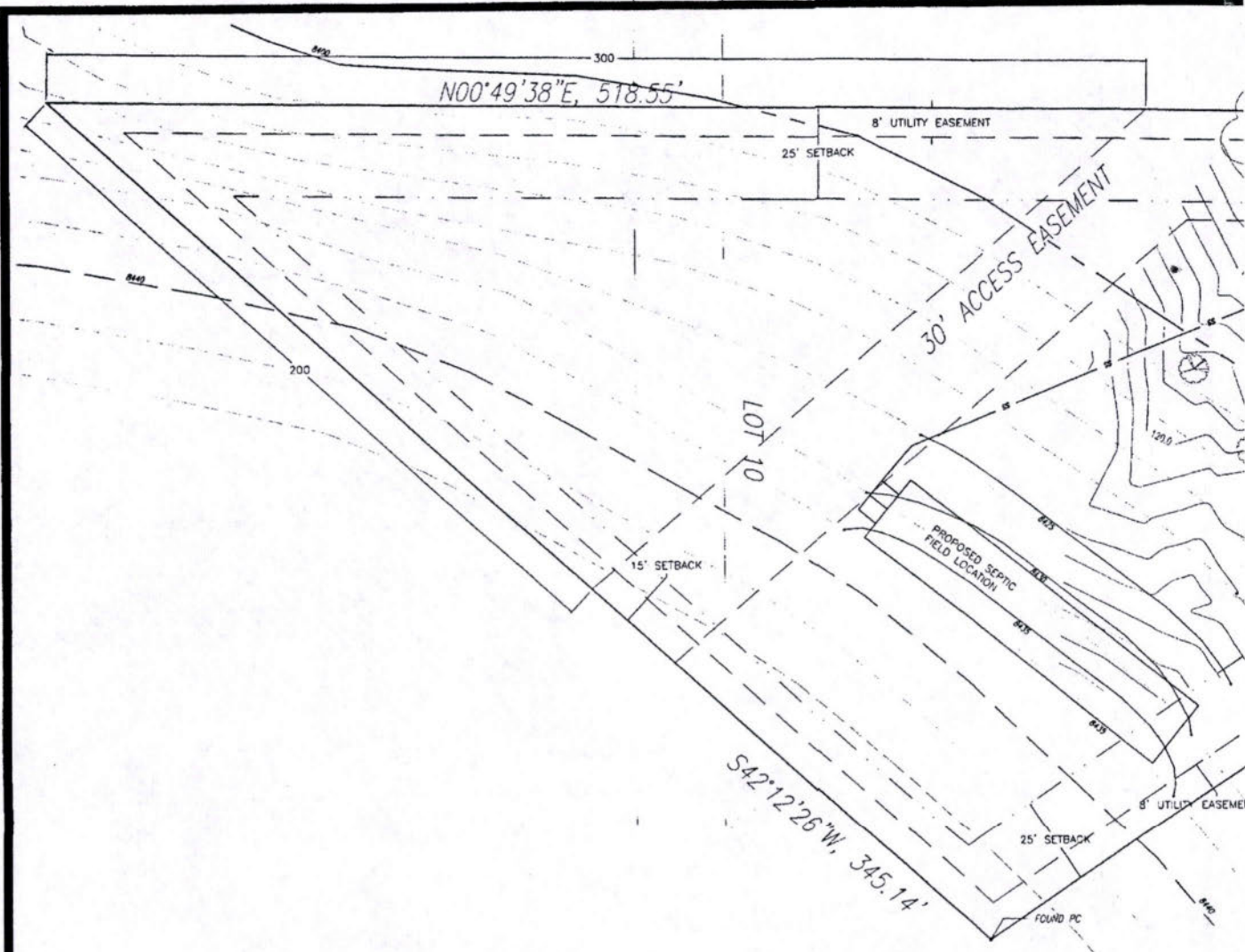


# Boulder County

Land Use Department  
PreApp - Location Map

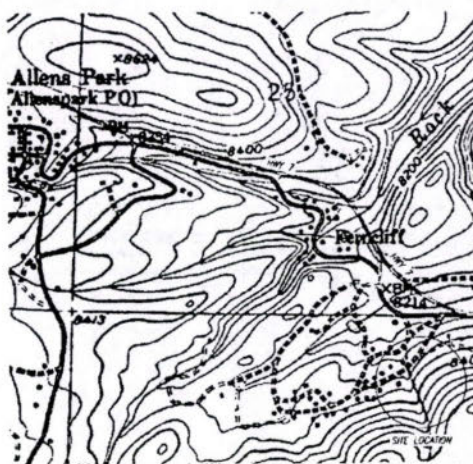






#### VICINITY MAP

SCALE = 1:1000

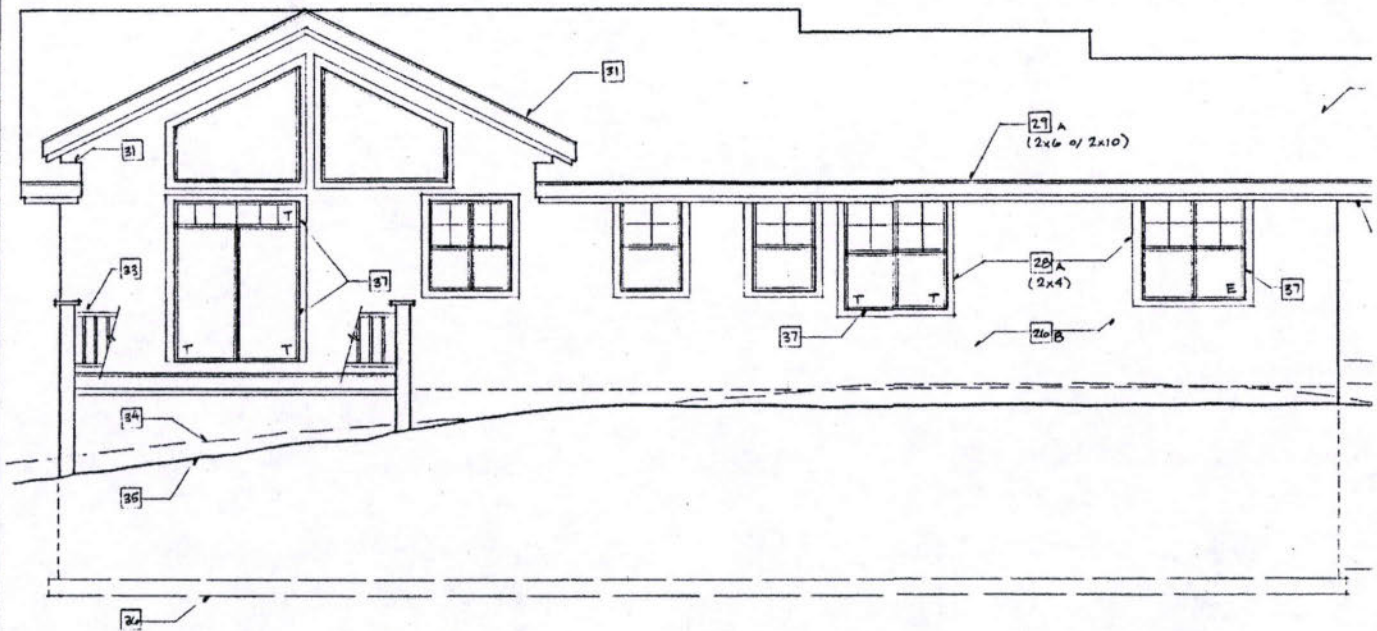


Map created with TOPO® ©2003 National Geographic (www.nationalgeographic.com/topo)

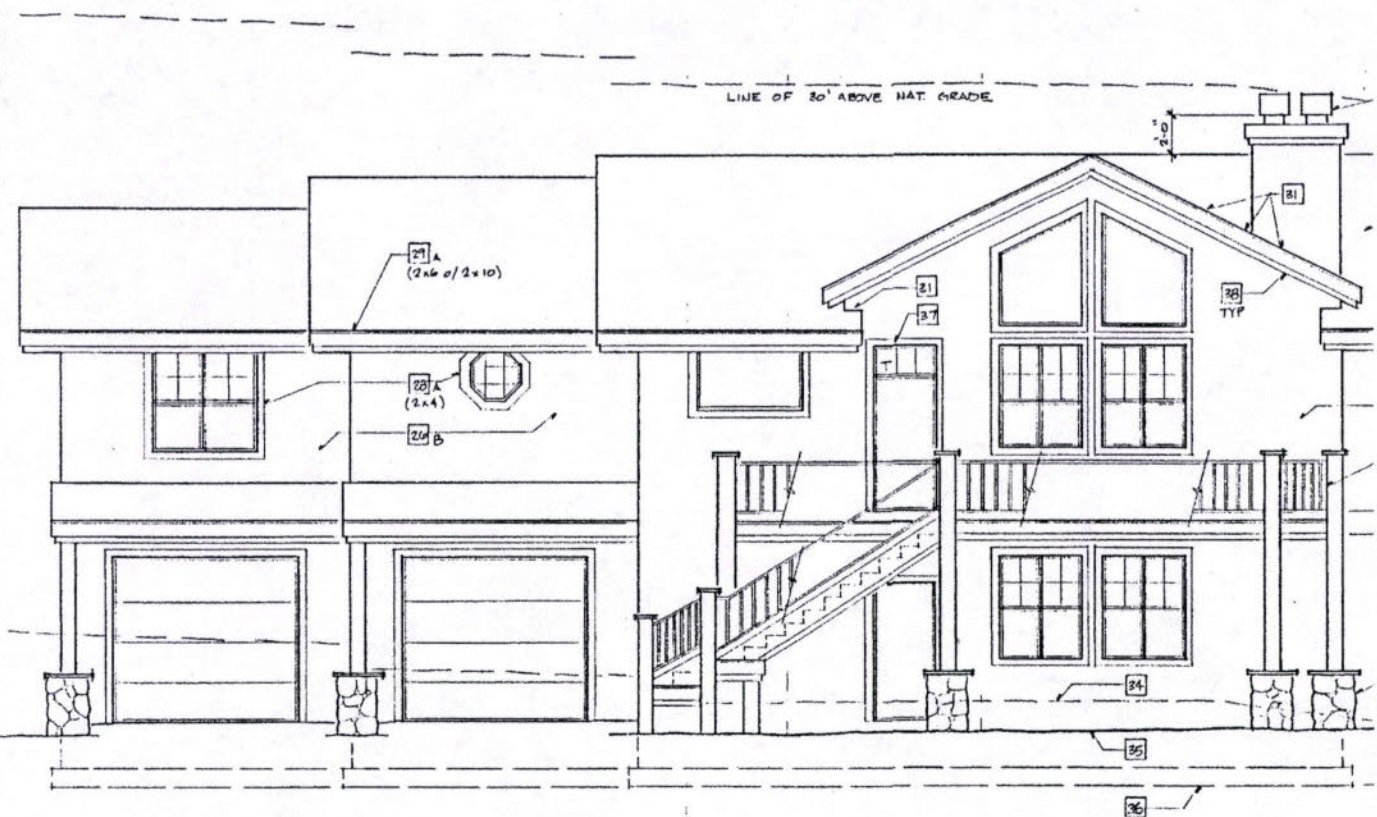
#### LEGEND:

- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- BUILDING SETBACK
- EXISTING EASEMENT
- EXISTING GRAVEL DRIVEWAY
- PROPOSED DRIVEWAY
- EXISTING GAS LINE
- EXISTING INDEX CONTOUR W/ ELEVATION
- EXISTING PRIMARY CONTOUR
- USGS 40' INDEX CONTOUR
- USGS 40' PRIMARY CONTOUR
- USGS 5' CONTOUR (EXTRAPOLATED)
- 90 — PROPOSED CONTOUR
- EXISTING ROCK OUTCROPPING
- EXISTING SEWER CLEANOUT
- EXISTING TELEPHONE PEDESTAL
- EXISTING WATER STOP BOX
- PROPOSED ELECTRIC SERVICE
- PROPOSED TELEPHONE SERVICE
- PROPOSED WATER SERVICE
- PROPOSED SEWER SERVICE
- PROPOSED DRAINAGE FLOW ARROW
- PROPOSED GAS SERVICE





SOUTH ELEV.  
 $\frac{1}{4}" = 1' - 0"$



NORTH ELEV.  
 $\frac{1}{4}" = 1' - 0"$



