

**DIRECTIONS FOR FILLING OUT FORM:**

Please fill out as complete as possible and fax to Cory Secher at 303-823-5768 or mail to 5625 Ute Highway, Longmont CO 80503-9130.

Any **Bolded** categories will be filled in by the CSFS representative at the time of initial site visit and tree marking for the defensible space. If you have any questions about this form please contact Cory Secher at 303-823-5774 or by email at [csecher@lamar.colostate.edu](mailto:csecher@lamar.colostate.edu).

**Wildfire Mitigation Plan**  
**FIELD DATA FORM****Inspection Date:** \_\_\_\_\_

Landowner name: \_\_\_\_\_

Mailing address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Site address: \_\_\_\_\_

Phone number: \_\_\_\_\_

Road access: \_\_\_\_\_

(Directions from main access road)

Docket Number: \_\_\_\_\_

(SPR, LU, Etc.)

Section: \_\_\_\_\_

Township: \_\_\_\_\_

Range: \_\_\_\_\_

Legal Description: \_\_\_\_\_

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

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

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

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

Fuel model type: 9

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

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

Slope: \_\_\_\_\_

Elevation: 8100' (feet)

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

Site moisture: Dry/med.Natural fire barrier: Power Plant / Coal Creek Canyon

Insect &amp; Disease Diagnosis: \_\_\_\_\_

Lot size (acres): 1.67 (Acres)Number of Structures: 1 (All structures to be present)Existing Structures: To be removed (240' Cabin) (House/barn/garage/etc.)New Structure: House w/ Attach Garage - 2 cars (House/Barn/new addition/etc..)Driveway length: ~130' (Actual length in feet from road to home)Driveway trees removed: Few (few/many/none)Home buffer material: Stone (Stone/crushed gravel/decorative stone)House design: Simple (simple/complex)Roof Design: Simple (simple/complex)Roof material: concrete tiles (Asphalt shingles/concrete tiles/metal)

Soffits type: Stucco (Plywood/hardboard/cement board)  
Siding material: Stucco (Cement/hardboard/log/stucco/stone/wood)  
Windows (#): 25 (approximate number of windows)  
Windows Size: medium (On average: small/medium/large)  
Windows Frames: Clad (Wood/aluminum/aluminum clad)  
Windows Aspect: Western (Dominant viewing direction)  
Window Construction: Low E (Tempered glass/e-coating/etc.)  
Door Material: wood-glass (Wood/steel/fiberglass/composite)  
Deck material: wood (Wood/composite materials)  
Deck Description: open (Enclosed/open)  
Deck support type: posts - Timber (Timber posts/logs/steel/concrete/stone)  
Deck buffer material: gravel (Crushed rock/gravel)  
Deck weed barrier: \_\_\_\_\_ (Fiberglass/polyester)  
Structure SQR. FT.: 3368 (Total square feet of structure)  
Utility Location: underground (Pole/buried: Direction from structure)  
Structure aspect: west - NW (Dominant facing direction/view)  
Leach field: 40' North (Distance from house, and direction)  
Cistern: \_\_\_\_\_ (Distance from house, and direction)  
Cistern Type: \_\_\_\_\_ (Domestic Cistern or Fire Cistern)  
Cistern size: \_\_\_\_\_ (gallons)  
Well (if applicable): 40' South (Distance form house, and direction)  
Propane Tank location: N/A (Distance from house and direction)

Other:

burned N. Gas line from gate, on road.

Comm  
Cistern  
No  
Pulleys



## **WILDFIRE MITIGATION PLAN**

For Randall Brown Residence  
31579 Coal Creek Canyon Drive  
Docket: SPR - 04 - 143  
Inspection date: 3/10/2005

### **Prepared for:**

Randall Brown  
1465 Glencoe Street  
Denver, CO 80220  
Phone: 303-917-6322

### **Prepared by:**

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Boulder District  
Phone: (303) 823-5774  
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Boulder District  
5625 Ute Highway  
Longmont, Colorado 80503-9130  
(303) 823-5774

## **SITE LOCATION AND PROPERTY DESCRIPTION**

The property is located at Section 25, Township 1S, and Range 72W. The fire protection district is the Coal Creek fire protection district (303-642-3121). There will be a new residence with an attached garage built on site. The lot is 1.67 acres in size and has a ~10% percent slope with a western aspect. The residence is at 8,100 feet in elevation, and has total of 3368 square feet. The proposed building site is mid-slope and it is a relatively dry site. Coal Creek Canyon Drive located about 100 yards south of residence creates a small barrier that may help stop or slow the spread of a surface/crown fire on the site.

## **CONSTRUCTION DESIGN AND MATERIALS**

The proposed house has a relatively simple design with a simple roofline and is oriented with a west-northwest aspect. The roofing material will consist of concrete tiles. The exterior wall material is to be stucco. Soffits are to be ¾" thick and made of stucco.

The structure has ~25 medium sized windows with the primary viewing direction being toward the western side of the structure. Windows will be double glazed with low e-coated tempered glass and frames made of aluminum clad. Exterior doors are to be 1-3/4", fire-rated, and made of wood and glass.

The one deck will be constructed of wood materials and supported by timber posts. The deck will be open and isolated from the surrounding landscape with gravel over a polyester weed barrier.

There will not be a propane tank on site. The property Will have a buried gas line from the gate that runs adjacent to the road and his driveway all the way to the residence.

Utilities for the property will be buried from a pole that is located near the gate that is located approximately 180 feet south of residence. The septic field is located 40 feet north of the residence. A well will be located 40 feet to the south of the residence (see map).

## **DRIVEWAY ACCESS FOR EMERGENCY VEHICLES**

Access to the property from Boulder take Highway 93 south toward Golden and turn west onto Coal Creek Canyon Drive (Highway 72) and continue to the United Power Plant and turn north past gate and the residence will be on your left just past the gate.

The existing driveway will create a little additional site disturbance and soil compaction and will require the removal of only a few trees. The driveway is 12 feet wide with a vertical clearance of 13'6" and a grade that is less than 12%. The driveway is only 130 feet long therefore there no turn around will be required (see plan for details). The driveway is less than 400 feet therefore no pull-outs are required

## **EMERGENCY WATER SUPPLY FOR FIRE FIGHTING**

The water source will be from the community cistern in which Mr. Brown will pay into the community cistern fund. Contact the Coal Creek fire protection district (303-642-3121) 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. 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 chipped. Note that if you decide to burn piles, you must obtain a valid Open Burning Permit from the Boulder County Environmental Health Department and notify your local fire protection district (Coal Creek fire protection district (303-642-3121)).



## DEFENSIBLE SPACE ZONES AND FOREST MANAGEMENT

The site has a dominant overstory consisting of ponderosa pine (*Pinus ponderosa*) with a ponderosa pine (*Pinus ponderosa*) and Douglas-fir (*Pseudotsuga menziesii*) understory component. The area is predominantly fuel model 9 with ground fuels consisting of grasses and forbs. 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. There is no sign of any current insect and disease problems on the property at the time of inspection.

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 three-foot wide, non-flammable strip will be created using stone 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 is to be removed. Any large dead woody material on the ground will also be removed. Firewise plants will be used for landscaping and re-vegetation. Grasses will 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) will 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 are to be retained for screening. All remaining trees in this zone will 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 will 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 10 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 will 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 [www.colostate.edu/Depts/CSFS/](http://www.colostate.edu/Depts/CSFS/) 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 should 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
- 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; check the Boulder Fire Weather website at [www.crh.hoaa.gov/den/fireindx.html](http://www.crh.hoaa.gov/den/fireindx.html)
- 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.

**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.

**Fire season** - The period(s) of the year during which fires are likely to start, spread and do damage to values-at-risk sufficient to warrant organized fire suppression; a period of the year set out and commonly referred to in fire prevention legislation. In B.C. the fire season is considered to extend from April 1 to October 31.

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

**Forest ecology** - The relationships between forest organisms and their environment.

**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.

**New forestry** - A philosophy or approach to forest management that has as its basic premise the protection and maintenance of ecological systems. In new forestry the ecological processes of natural forests are used as a model to guide the design of the managed forest.

**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).

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

**Wildfire mitigation plan** – A plan to reduce wildfire hazards around a home or other structure through fuels reduction. A document to inform urban interface home owners of the dangers and responsibilities of living in the interface. A plan to help outline the initial and ongoing fuels reduction needed to maintain an effective and healthy wildfire defensible space.



Landscape Scale Map  
Property of Mr. Randall Brown  
31579 Coal Creek Canyon Drive  
SPR# 04-143

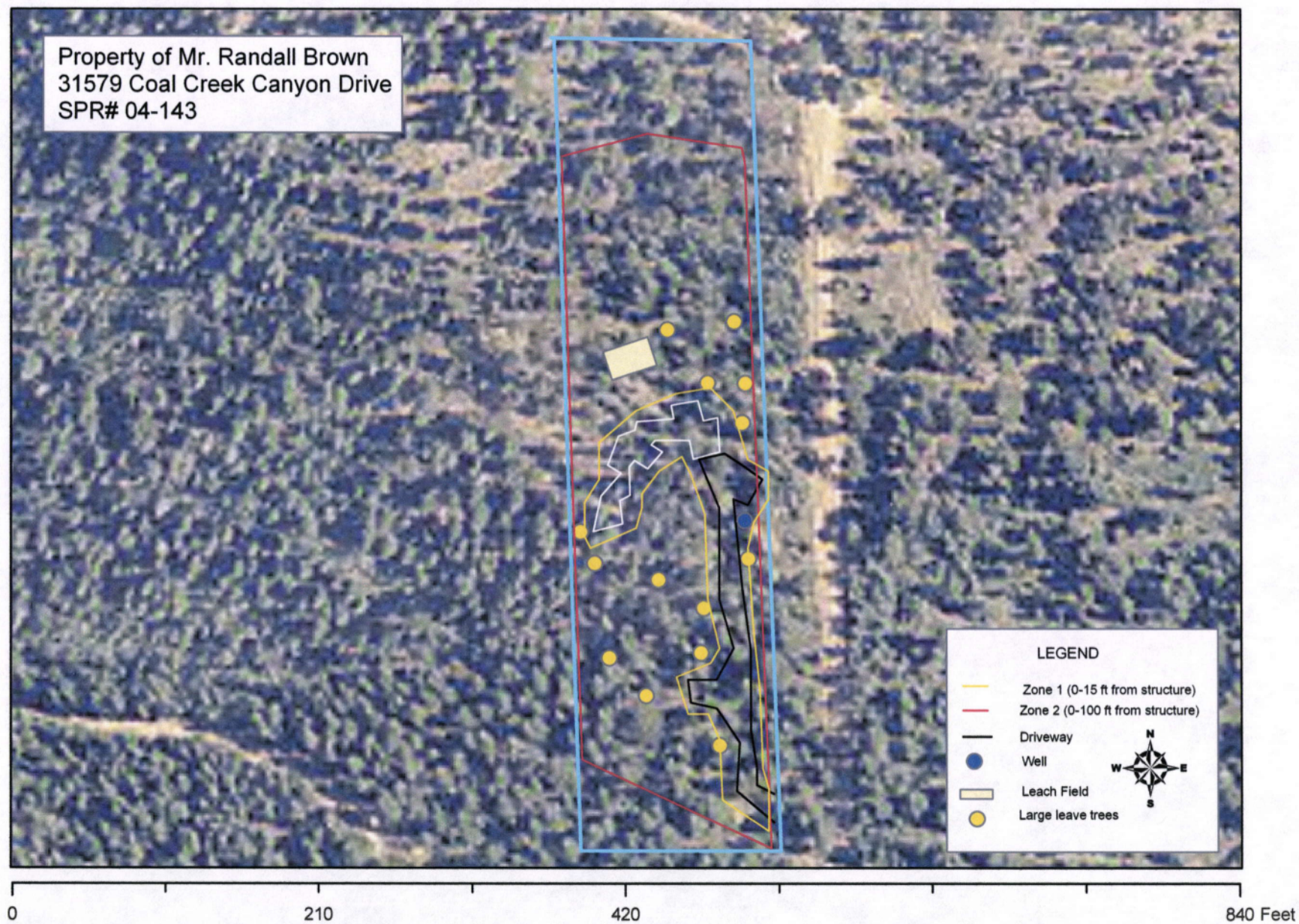


Highway 72 (Coal Creek Canyon Drive)

0 1,200 2,400 4,800 Feet



Property of Mr. Randall Brown  
31579 Coal Creek Canyon Drive  
SPR# 04-143





# BROWN RESIDENCE

31579 HIGHWAY 72  
GOLDEN, COLORADO  
80403

ISSUED FOR:	DATE:
SITE PLAN REVIEW	11/22/04
SITE PLAN REVIEW	12/20/04
SITE PLAN REVIEW	01/31/05

KEY PLAN

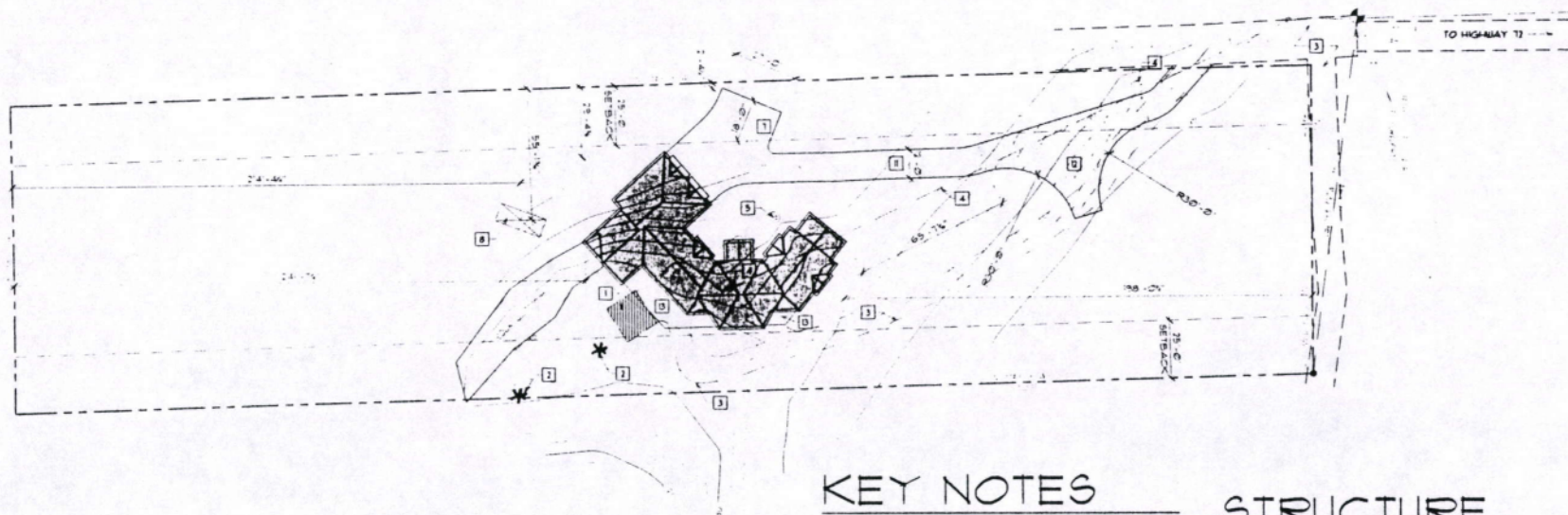
SHEET TITLE

SITE PLAN

SHEET NUMBER

A1.01

ARCHITECT'S PRELIMINARY NUMBER



## SITE PLAN

SCALE: 1" = 50'-0"  
TOTAL ACRES = 1.67 ACRES

## GENERAL NOTES

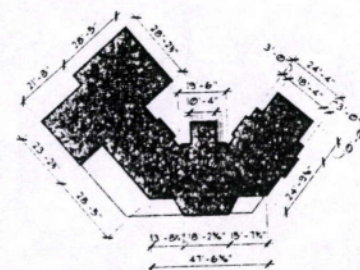
1. GRADING LINES SHOWN ARE EXISTING. NEW GRADING LINES ARE NOT SHOWN.
2. WATER WILL BE PROVIDED BY A WELL. WELL LOCATION TO BE DETERMINED.
3. LANDSCAPING IS TO BE DETERMINED
4. ALL TREES WITHIN 17 FEET OF HOUSE ARE TO BE REMOVED FOR WILDFIRE MITIGATION. WILDFIRE MITIGATION PLAN TO BE SUBMITTED AT A LATER DATE.
5. USE OF LAND AND STRUCTURES: PROPERTY IS BE USED FOR A SINGLE FAMILY RESIDENCE
6. BUILDING FOOTPRINT (NOT INCLUDING DECK) IS 3368 SF. THIS SQUARE FOOTAGE CALCULATION IS MEASURED FROM THE INSIDE FACE OF THE STUD WALL.

## KEY NOTES

- 1 EXISTING STRUCTURE TO BE DEMOLISHED
- 2 EXISTING TREE
- 3 EXISTING ROAD
- 4 EXISTING POWERLINE/POLE
- 5 EXISTING WELL
- 6 NOT USED
- 7 (3) PARKING SPACES
- 8 LEACH FIELD / SEPTIC SYSTEM
- 9 NOT USED
- 10 NOT USED
- 11 NEW DRIVEWAY
- 12 DASHED AND STRIPED AREA: HAMMERHEAD TURNAROUND PER BOULDER COUNTY, "EMERGENCY ACCESS AND WATER SUPPLY"
- 13 NEW DECK
- 14 NOT USED

## STRUCTURE DIMENSIONS

SCALE: 1" = 50'-0"





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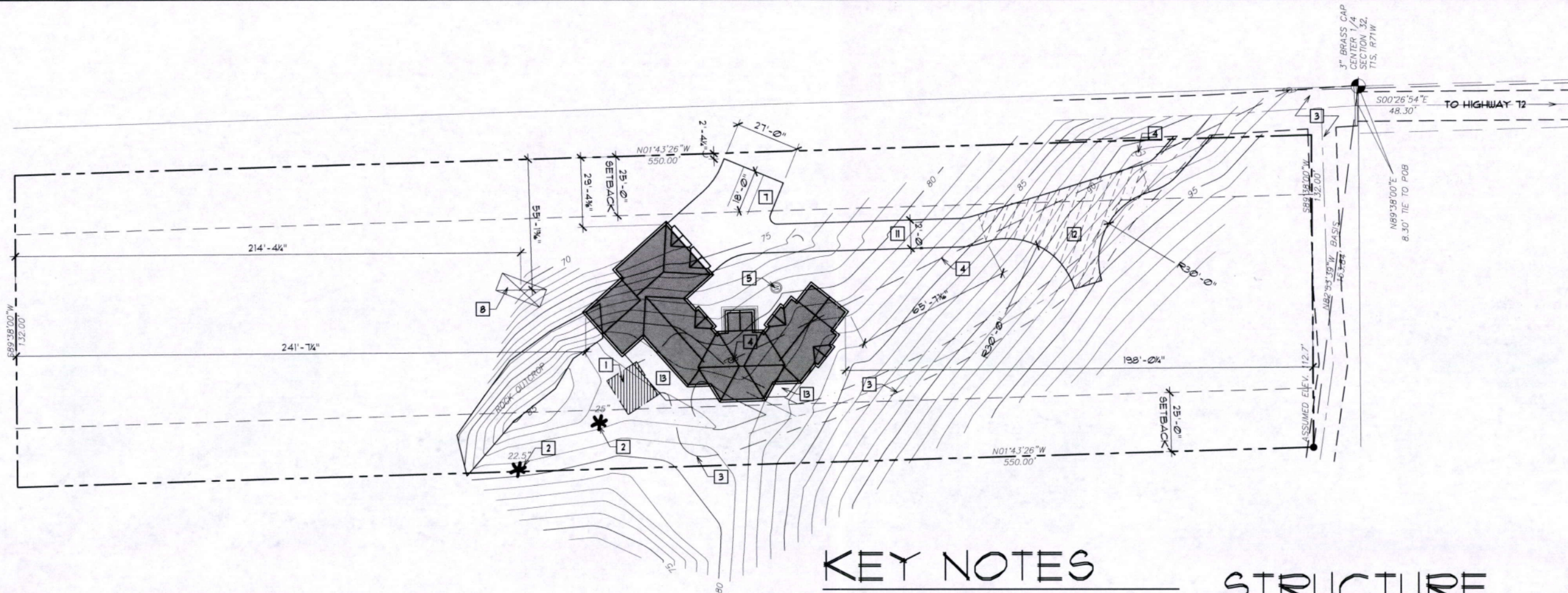
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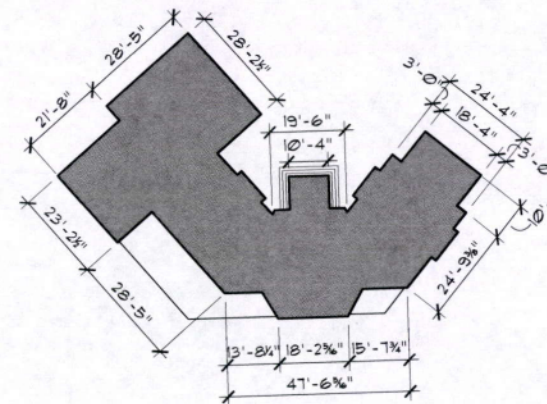


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