

WILDFIRE MITIGATION PLAN

For David Hirschfeld Residence
315 Sandstone Drive, Lyons CO 80540
Docket: SPR - 05 - 083
Inspection date: 9/7/2005



Knowledge to Go Places

Prepared for:

David Hirschfeld
4121 Ute Highway
Longmont, CO 80503
Phone: 303-434-1938

Prepared by:

Cory Secher - Forester
Boulder District
Phone: (303) 823-5774
E-mail: csecher@lamar.colostate.edu

Boulder District

5625 Ute Highway
Longmont, Colorado 80503-9130
(303) 823-5774

PURPOSE OF A WILDFIRE MITIGATION PLAN

The purpose of a Wildfire Mitigation plan is to give guidelines to reduce 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 at Section 25N, Township 3N, and Range 71W Lot 71, Lyons Park Estates. The fire protection district is the Lyons fire protection district (303-441-3900). There will be a new residence with attached garage built on site. The lot is 4 acres in size and has a ~3-5% percent slope with an eastern aspect. The residence is at 6,500 feet in elevation, and has total of 6,094 square feet. The proposed building site is on a ridge and it is a relatively dry site. A cliff located ~200 feet to the north creates a small natural 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 an east aspect. The roofing material will consist of asphalt shingles. The exterior wall material is to be stucco and stone. Soffits are to be 3/4" thick aluminum covered plywood. The structure has ~20 medium sized windows with the primary viewing direction being toward the east 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. The one deck will be constructed of composite materials and supported by stone. The deck will be open and isolated from the surrounding landscape with gravel over a polyester weed barrier. The propane tank will be set on a pad of crushed rock overlaying a fiberglass weedbarrier approximately 30 feet north of the residence. The propane tank will be set on a pad of crushed rock overlaying a fiberglass weedbarrier approximately 30 feet north of the residence. Vegetation within 10 feet of the propane tank will be kept cleared. Utilities for the property will be buried from a pole located ~120 feet to the west of the residence. The septic field is located ~40 feet to the north of the residence. A well will be located ~70 feet west of the residence.

DRIVEWAY ACCESS FOR EMERGENCY VEHICLES

Access to the property from Lyons take Highway 7 towards Allenspark and then turn onto Old St. Vrain Rd. and then turn left onto Red Gulch Rd. and continue to Jasper Drive, Flint Gulch Drive, and then onto Sandstone Drive.. 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 approximately 140 feet long therefore no turn around will be required. The driveway is less than 400 feet therefore no pull-outs are required.

EMERGENCY WATER SUPPLY FOR FIRE FIGHTING

The water source will from a community cistern, but they will also have a domestic cistern that will be located ~50 feet north of the residence. Contact the Lyons fire protection district (303-441-3900) 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 hauled off site. 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 (Lyons fire protection district (303-441-3900)).

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 Rocky Mountain Juniper (*Juniperus scopulorum*) 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 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 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/ 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
- 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; check the Boulder Fire Weather website at 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.



Annual fire safety checklist

- Thin trees and brush properly within defensible space.
- Remove trash and debris from defensible space.
- 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.
- Use a chimney screen or spark arrester in fireplaces.
- Clear vegetation from around fire hydrants, cisterns, propane tanks, etc.
- 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 and search for wildfire, view the Colorado State Cooperative Extension fact sheet on [Forest Home Fire Safety](#), 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

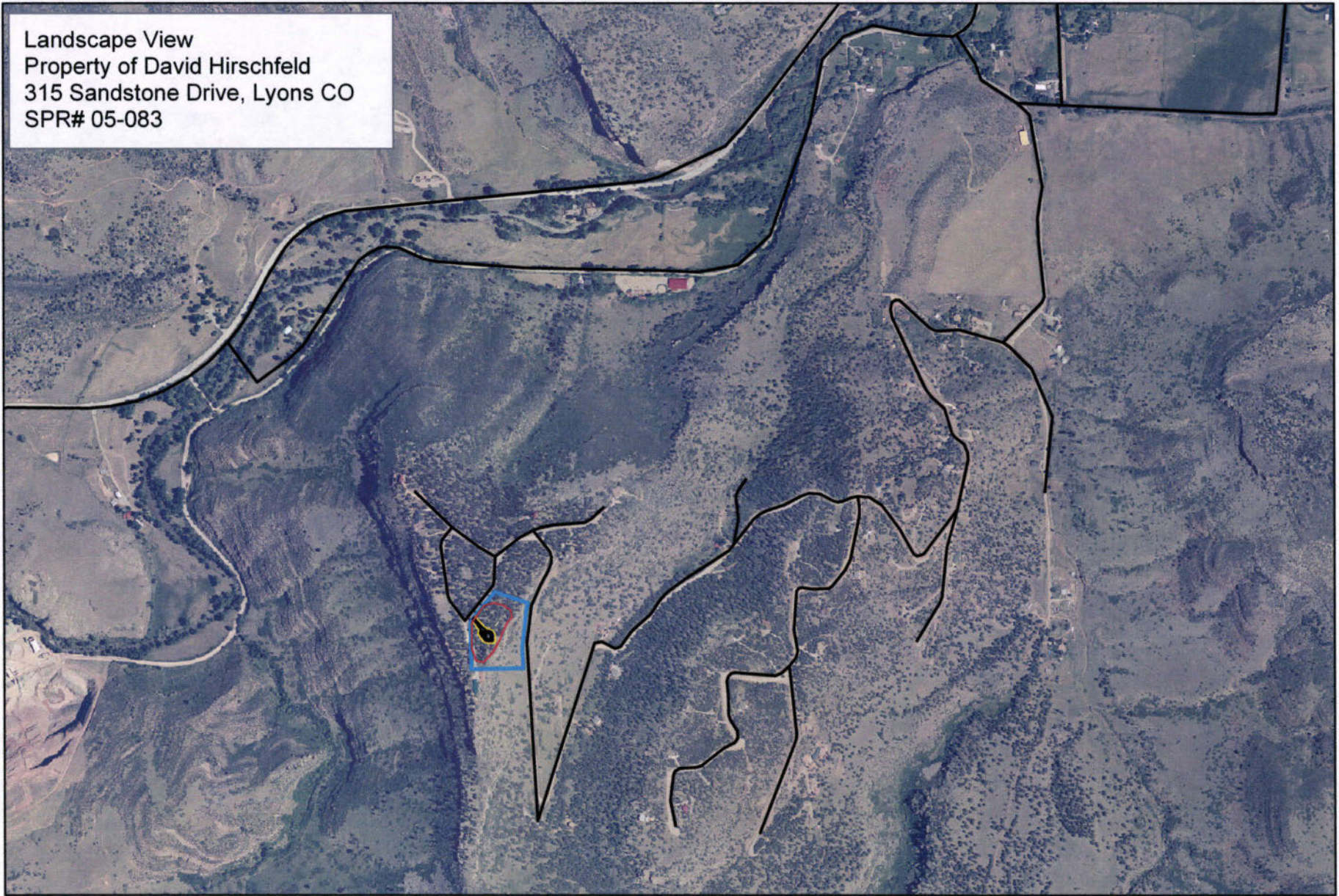
| <u>Flame Heights</u> | <u>Distance separation</u> | <u>Area in Acres</u> |
|----------------------|----------------------------|----------------------|
| 10 feet | 40 feet | 1/10 acre |
| 20 feet | 80 feet | 1/2 acre |
| 50 feet | 200 feet | 3 acres |
| 75 feet | 300 feet | 7 acres |
| 100 feet | 400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

Landscape View
Property of David Hirschfeld
315 Sandstone Drive, Lyons CO
SPR# 05-083



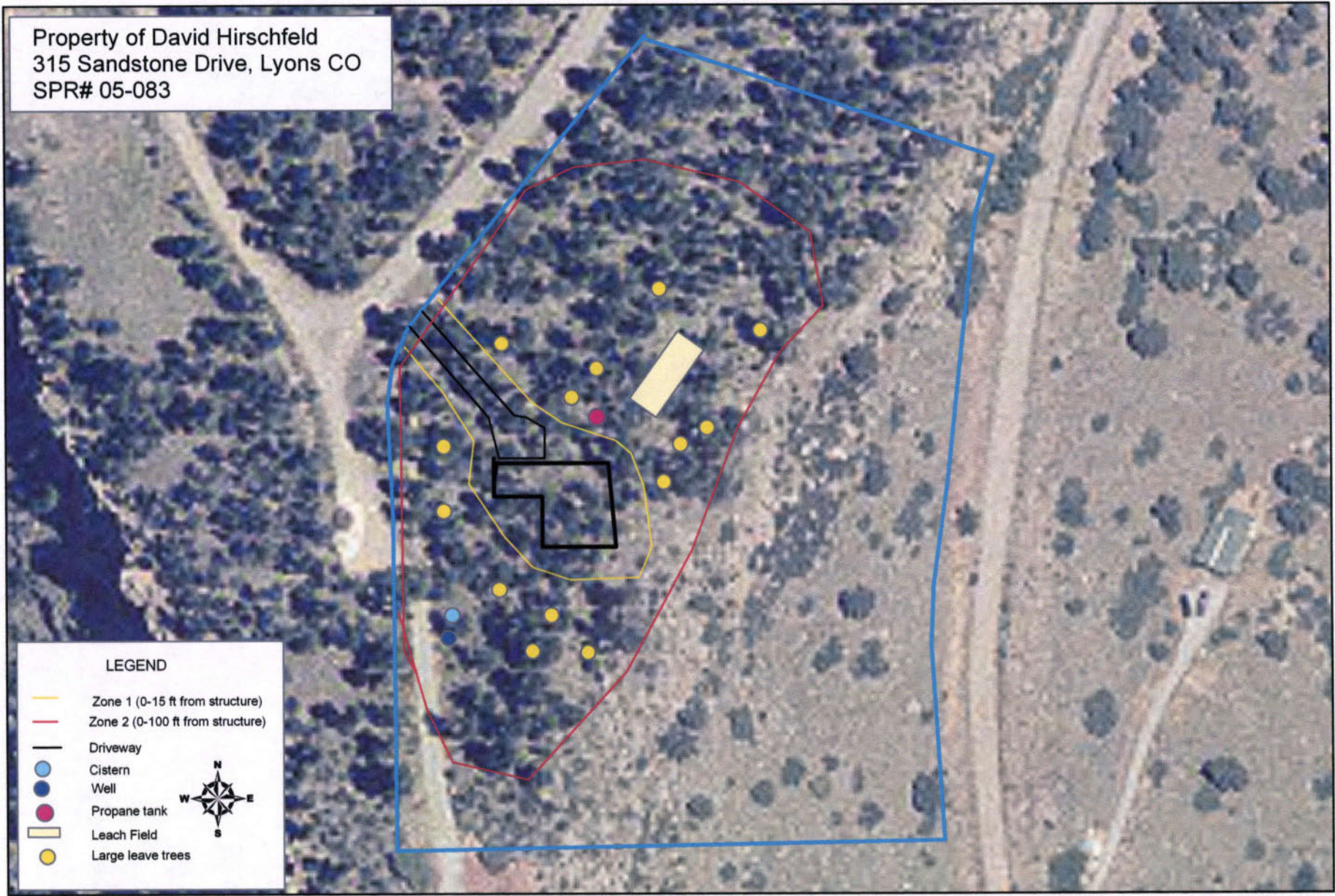
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2,250









4,500

9,000 Feet

Property of David Hirschfeld
315 Sandstone Drive, Lyons CO
SPR# 05-083



LEGEND

-  Zone 1 (0-15 ft from structure)
-  Zone 2 (0-100 ft from structure)
-  Driveway
-  Cistern
-  Well
-  Propane tank
-  Leach Field
-  Large leaf trees

0 215 430 860 Feet

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, or bring to scheduled marking appointment.

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.

Wildfire Mitigation Plan
FIELD DATA FORM

Inspection Date: 9-7-05

Landowner name: David Hirschfeld

Mailing address: 4121 Ute Hwy.

City, State, Zip: Longmont CO 80503

Site address: 315 Sandstone Dr.

Phone number: 303-434-1938

Road access: _____ (Directions from main access road)

Docket Number: SPR 05 083 (SPR, LU, Etc.)

Section: _____

Township: _____

Range: _____

Legal Description: Lot 71 Lyons Park Estates

FPD: Lyons FPD

Dominant fuel type: _____

(Grass/forbs/shrubs/slash/etc)

Dominant overstory: Ponderosa

Co-dominant overstory: Pondo.

Fuel model type: _____

Slash disposal: hauled (Chipped/hauled/burned/lop-scatter)

Aspect: Eastern (Direction of slope)

Slope: 3% N.

Elevation: 6,500 (?) (feet)

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

Site moisture: Dry ~400"

Natural fire barrier: Chits on E + W side

Insect & Disease Diagnosis: None

Lot size (acres): 4 (Acres)

Number of Structures: 1 (All structures to be present)

Existing Structures: none (House/barn/garage/etc.)

New Structure: house w/ attached garage (House/Barn/new addition/etc..)

Driveway length: 140' (Actual length in feet from road to home)

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

Home buffer material: Crushed gravel (Stone/crushed gravel/decorative stone)

House design: Simple (simple/complex)

Roof Design: Simple (simple/complex)

Roof material: asphalt shingles (Asphalt shingles/concrete tiles/metal)

Soffits type: plywood, ^(M) aluminum cover (Plywood/hardboard/cement board)

Siding material: stucco + stone (Cement/hardboard/log/stucco/stone/wood)

Windows (#): ~~20~~ 20 (approximate number of windows)

Windows Size: medium (On average: small/medium/large)

Windows Frames: vinyl (Wood/aluminum/aluminum clad)

Windows Aspect: East (Dominant viewing direction)

Window Construction: Low-e (Tempered glass/e-coating/etc.)

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

Deck material: composite materials (Wood/composite materials)

Deck Description: open (Enclosed/open)

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

Deck buffer material: gravel (Crushed rock/gravel)

Deck weed barrier: polyester (Fiberglass/polyester)

Structure SQR. FT.: 3678^{sq. Ft.} + 2416^{sq. Ft.} basement (Total square feet of structure) sprinkler

Utility Location: buried, west ^{~120'} (Pole/buried: Direction from structure)

Structure aspect: East (Dominant facing direction/view)

Leach field: 40' North (Distance from house, and direction)

Cistern: 80', West (Distance from house, and direction)

Cistern Type: Domestic (Domestic Cistern or Fire Cistern) Fire Community Cistern

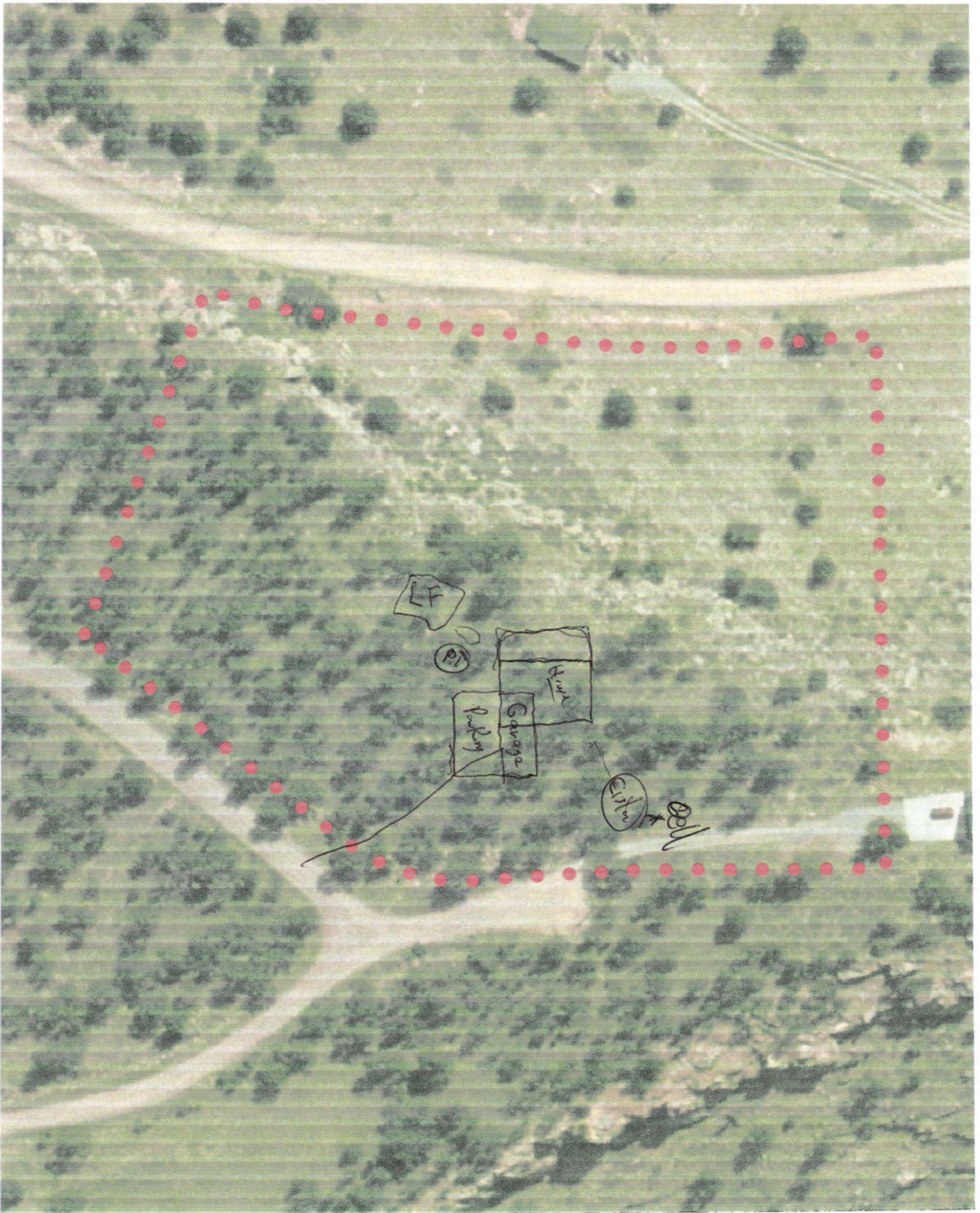
Cistern size: (1000 - 1800 gal. ?) (gallons)

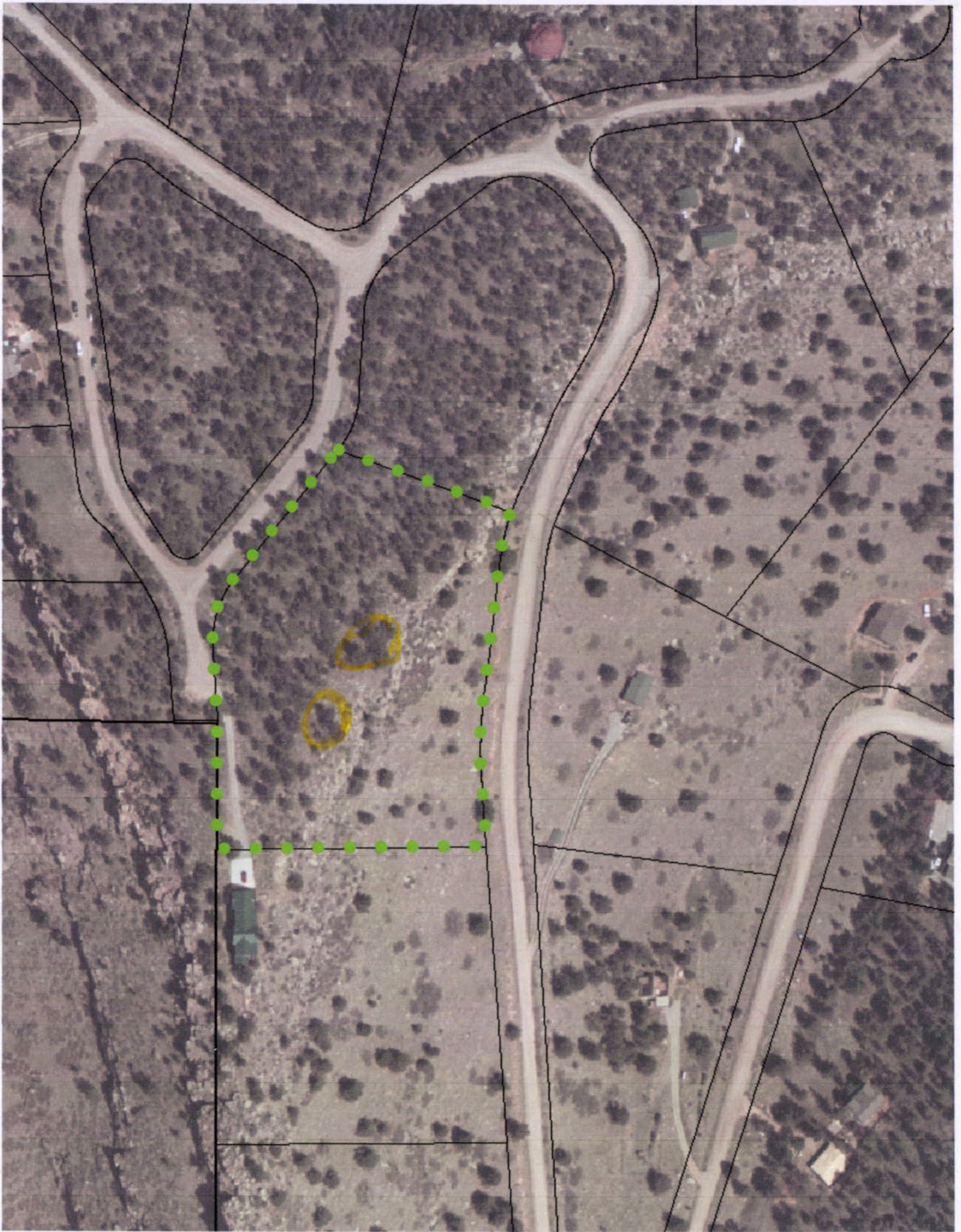
Well (if applicable): 70', West (Distance form house, and direction)

Propane Tank location: 30' North (Distance from house and direction)

check
-15 vic

Payung
Community Cistern







Land Use Department

Courthouse Annex
2045 13th Street • 13th & Spruce Streets • Boulder, Colorado 80302 • (303) 441-3930

August 23, 2005

David E. & Teri L. Hirschfeld
4121 Ute Hwy.
Longmont, CO 80503

Dear David E. & Teri L. Hirschfeld:

This letter certifies that in accordance with section 4-800 of the Boulder County Land Use Code, the Boulder County Land Use Director has Approved with Conditions the site plan for the following, effective 23-AUG-05.

Docket SPR-05-083: HIRSCHFELD residence Site Plan Review

Request: Site Plan Review for the construction of a 6,274 sq ft residence and attached garage (2,416 sq ft basement, 2,600 sq ft 1st floor, 1,078 sq ft attached garage, 180 sq ft covered deck)
Location: At 315 Sandstone, Lot 71, Lyons Park Estates in Section 25, T3N, R71W
Zoning: Agricultural (A)
Applicant: David E. & Teri L. Hirschfeld

This is a Conditional Approval made by the Land Use Director, and is not final until a 14-day referral period has transpired. During the next 14 days, the Board of County Commissioners (BOCC) may choose to call this docket up for a public hearing. If no hearing is required, this letter will serve as the final determination. Building, grading and access permits will be subject to any and all conditions of approval.

If the BOCC should decide to modify the Land Use Director's approval, or determines that further review is necessary, a public hearing will be held. Upon completion of the public hearing and approval by the BOCC, if a building, grading or access permit has been applied for, it will continue in the process and permits may be issued subject to any and all conditions of approval.

In the event that you wish to appeal any conditions of the Land Use Director's determination, you are entitled to appeal the determination to the BOCC. You must file an appeal for this purpose with the Land Use Department in writing no later than 14 days after the date of this letter. If an appeal is requested, the BOCC will review the Land Use Director's determination at a public meeting.

Please be aware that the attached Conditions of Approval become final if the docket is not called up by the BOCC at the end of the 14-day review period. There are no other administrative means to appeal. If you wish to resubmit information with regards to complying with any of the attached Conditions of Approval, and have this information reviewed for approval by staff prior to the end of the 14-day review period, your submissions must be received by the office no later than 10 days from the date of this letter.

Tom Mayer
County Commissioner

Ben Pearlman
County Commissioner
SPR-05-083

Will Toor
County Commissioner

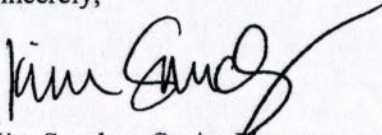
Site Plan Review approval is valid for three years from the date of this letter although any changes in County regulations could affect the proposal prior to application for a building permit. In order to be issued a building permit, the project must comply with all policies and regulations in effect at the time of permit application.

A Building Permit cannot be issued for this project until the applicable conditions above have been met. Furthermore, a Certificate of Occupancy cannot be issued for this project until the applicable conditions above have been met. A SPR inspection will need to be scheduled with this department prior to the issuance of a Certificate of Occupancy. None of the conditions of approval will be waived or a Certificate of Occupancy issued for this project based upon the applicant's need to meet financial obligations (i.e., construction cost overruns or loan closing dates). Any future additions to the approved structure, regardless of size, will require SPR approval to amend this SPR.

Please return the Public Notice sign placed on the review site within 30 days of the date on this Determination Letter. Or, if your Site Plan Review application requires a public hearing, please return the sign within 30 days of the final public hearing. If the sign is not returned within this time, you will be assessed a fee of \$25 at the time you apply for a building permit.

Please carefully **review the attached conditions of approval**. Compliance with these conditions will be confirmed as is necessary throughout the process.

Sincerely,

A handwritten signature in black ink, appearing to read "Kim Sanchez", with a long, sweeping flourish extending to the right.

Kim Sanchez, Senior Planner
Land Use Department

| | |
|--------------------------|----------------------|
| DOCKET#: | SPR-05-083 |
| APPLICANT: | HIRSCHFELD residence |
| PROJECT LOCATION: | 315 Sandstone Drive |

CONDITIONS OF APPROVAL

Article 4-806 of the Land Use Code states that all site plan review applications shall be reviewed in accordance with the following standards which the Director has determined to be applicable based on the nature and extent of the proposed development. *Only those standards applicable to this project are included in this list.*

1. *The location of existing or proposed buildings, structures, equipment, grading or uses shall not impose an undue burden on public services and infrastructure.*
The proposed drive must comply with Boulder County's Private Access Standards (County Road Standards and Specifications Article 4.5).

2. *The height, size, location, exterior materials, color, and lighting of proposed structures shall be compatible with the topography, vegetation, and general character of the applicable neighborhood or surrounding area.*

A. SIZE, HEIGHT, LOCATION, EXTERIOR MATERIALS, and LIGHTING

The following items have been reviewed and are approved as proposed:

| | Description | Approved |
|----------------------------|---|-----------|
| Size: | Approximately 6,274 square foot residence (2416 sq.ft. basement, 2600 sq.ft. 1 st floor, 1078 sq.ft. attached garage, 180 sq.ft. covered deck) | 8/23/2005 |
| Height: | Maximum of 26' from existing grade | 8/23/2005 |
| Location: | As indicated on site plan | 8/23/2005 |
| Exterior Materials: | Stucco siding and asphalt-shingle roof | 8/23/2005 |
| Exterior Lighting: | Lighting locations, as shown on elevation drawings Fixtures submitted with application materials | 8/23/2005 |

B. EXTERIOR COLORS

The application materials propose "beige" as the exterior wall color and "grey" as the roof color. No samples, however, were provided for review. The colors for this structure should be chosen to ensure that they are compatible with the policies and goals established by the Comprehensive Plan and provisions of the Land Use Code and must blend with the surrounding environment as much as possible. Due to the visibility of this site (from Heil Open Space, public roads, and the town of Lyons), it is

imperative that dark colors are used to help the house blend in with the existing vegetation.

Prior to issuance of building permits, submit to the Land Use Department for review and approval, one set of samples (color chips, brochure, or catalog page) of all exterior colors to be used for the roofing, siding and trim. Dark colors are required. Note that these samples need to be small enough to fit into a file and will be kept for the record.

At the time of final inspection, the Land Use Department must inspect and verify that the approved color samples are used on the new structure.

C. EXTERIOR LIGHTING

The locations and types of exterior lighting fixtures are approved as proposed with the application materials (see elevation drawings and proposed fixture submitted).

At the time of final inspection, the full installation of the approved lighting plan must be inspected and approved by the Land Use Department.

4. *The site plan shall satisfactorily mitigate the risk of wildfire both to the subject property and those posed to neighboring properties in the surrounding area by the proposed development. In assessing the applicable wildfire risk and appropriate mitigation measures, the Director shall consider the referral comments of the County Wildfire Mitigation Coordinator and the applicable fire district, and may also consult accepted national standards as amended, such as the 2003 Urban-Wildland Interface Code; NFPA / 80A, 299, 1231; 2003 International Fire Code; and the 2003 International Building Code.*

A. WILDFIRE MITIGATION PLAN REQUIREMENT

A Wildfire Mitigation Plan is required for this property. **Please contact the Boulder County Wildfire Mitigation Coordinator at 720-564-2625 in regards to the specific wildfire mitigation requirements for your project.**

Prior to the issuance of any permits or removal of any trees, please submit a Wildfire Mitigation Plan, including a defensible space plan and selection of an emergency water supply (i.e., individual cistern or contribution to community cistern) to the county Wildfire Mitigation Coordinator (Eric Philips) for review and approval. The defensible space plan must show the existing trees that are required to be preserved for visual screening per Condition 10.A. The existing stand of trees to the southeast (toward Heil Open Space), northeast (toward the town of Lyons) and west (which serve as a backdrop for the residence) of the

proposed residence are critical for visual screening and view shed mitigation and must be preserved while providing for fire safe defensible space requirements. Also, all building materials must be of ignition resistant construction and roofing materials must be UL listed Class-A.

At the time of foundation form inspection, the defensible space and water supply plans must be implemented and inspected by the Land Use Department. Land Use staff must confirm that trees that were required to be preserved remain on the property. All trees marked for removal must be cut and all slash, cuttings, and debris must be removed and/or properly disposed of. If an individual cistern was chosen, it must be located on site in an appropriate location (subject to approval by the fire protection district), fitted with an appropriate dry hydrant connection, be filled, and you should have this tested by the local fire protection district. Alternatively, a contribution for the use and maintenance of a community cistern must have been made to the local fire protection district.

Prior to final inspection, all remaining aspects of the Wildfire Mitigation Plan must be implemented and inspected. Ground surfaces within three feet of the structure must be covered with a non-combustible ground cover over a weed barrier material. The driveway must be in place and conform to Boulder County private access standards. A completed copy of the Boulder County Fire Sprinkler/Fire Hydrant/Cistern Approval form must be approved.

B. SPRINKLER

The proposed structure must comply with Section R324 of the Amendments to the Boulder County Building Code, which may include the installation of a fire sprinkler system in dwellings, lodging houses and congregate residences with total floor areas, including attached garages and basements, exceeding 3,600 square feet. Please contact the Building Division at 303-441-3925 for more information.

5. *The development shall avoid significant natural ecosystems or environmental features, including but not necessarily limited to riparian corridors and wetland areas, plant communities, and wildlife habitat and migration corridors, as identified in the Comprehensive Plan or through the site plan review process. Development within or affecting such areas may be approved, subject to acceptable mitigation measures and in the discretion of the Director, only if no other sites on the subject property can be reasonably developed, or only if reasonably necessary to avoid significant adverse impacts based upon other applicable site plan review criteria.*

A. WILDLIFE SAFE FENCE

Because this area serves as a mountain wildlife movement corridor, the following wildlife-safe specifications shall apply for any new fences:

- (i) Fencing is to be kept as close to the developed site as possible.
- (ii) Top and bottom wires must be smooth, with wire spacing at 16-22-28-40 inches from ground. Please note that fences over 42 inches create serious negotiation problems for deer, and that fences between 42 inches and 8 feet can be lethal.
- (iii) The bottom wire must be at least 16 inches from the ground for the passing of fawns.
- (iv) A 12-inch gap between the top two wires is required to reduce entanglement and wire twisting.
- (v) Materials like woven wire or tightly strung single strand wire must be used.
- (vi) No chain-link fences are permitted except for small isolated pens or kennels, as wildlife are easily entangled in mesh fences and impaled on wrought iron pickets.

10. ***The development shall not have a significant negative visual impact on the natural features or neighborhood character of surrounding area. Development shall avoid prominent, steeply sloped, or visually exposed portions of the property. Particular consideration shall be given to protecting views from public lands and rights-of-way, although impacts on views of or from private properties shall also be considered. Development within or affecting features or areas of visual significance may be approved, subject to acceptable mitigation measures and in the discretion of the Director, only if no other sites on the subject property can be reasonably developed, or only if reasonably necessary to avoid significant adverse impacts based upon other applicable site plan review criteria.***

A. TREE PRESERVATION

Because of this site's visible location (from Heil Open Space, public roads, and the town of Lyons), the existing stands of trees to the southeast (toward Heil Open Space), northeast (toward the town of Lyons) and west (which serve as a backdrop for the residence) of the proposed residence must be preserved. Preservation of these trees is critical for visual screening and to soften visual impacts of the structure. The intent is not to hide the structure, but to break up its massing and have it blend in with trees. Please indicate the trees that are required to be preserved and incorporate their location into the Wildfire Mitigation Plan.

Prior to issuance of building or grading permits, the Tree Preservation Plan must be incorporated into the Wildfire Mitigation Plan and submitted for review and approval by the Land Use Department. The Wildfire Mitigation Plan must demonstrate which existing trees are to be removed and limbed for wild fire mitigation, and must show the stands of trees that are required to be preserved.

Prior to issuance of a certificate of occupancy, Land Use staff must confirm that trees that were required to be preserved remain on the property.

11. ***The development shall not cause unnecessary or excessive site disturbance. Such disturbance may include but is not limited to long driveways, over-sized parking areas, or severe alteration of a site's topography. Driveways or grading shall have a demonstrated associated principal use.***

A. **GRADING/EARTHWORK**

The following amount of grading/earthwork were proposed with the application materials:

| GRADING/EARTHWORK AMOUNT |
|--|
| 111 CY of fill for driveway & parking area, in location indicated on site plan |
| 666.60 CY of foundation cut |
| 290.7 CY of incidental backfill from foundation cut |
| 25.9 CY of fill for sidewalk/patio pad |

The application materials indicate that approximately 239 cubic yards of material cut from foundation excavation will be removed from the property and transported to Bear Industrial Park in Weld County.

All reasonable efforts shall be made to minimize the site disturbance associated with this development proposal. If total earthwork (excluding normal excavation contained within structure footings and foundations) exceeds the 500 cubic yards, Limited Impact Special Use Review will be required.

Prior to issuance of a certificate of occupancy, a receipt for transport and dumping must be submitted to the Land Use Department so that receipt of fill materials may be verified.

B. BLASTING PLAN

Blasting may be required for initial excavation and for the basement cut. If blasting is determined to be required, then a blasting plan generated by a blasting contractor must be submitted to the Land Use Department for review and approval *prior to issuance of building or grading permits*. The Land Use Department must be notified a minimum of 48 hours prior to blasting. In addition, all adjoining property owners within 1,500 feet of the site shall be notified 24 hours prior to blasting. This notification may consist of a phone call, door posting on respective premises, or any other means deemed acceptable to the Land Use Department.

C. UTILITIES

To minimize disturbances to the site, all utility service lines shall be routed underground (see Article 7-1200 of the Land Use Code) and should be located in areas already disturbed or proposed to be disturbed (e.g., along driveway).

Prior to issuance of building and grading permits, submit to the Land Use Department for review and approval a plan depicting the routing of all utility services.

At the time of underground inspection or meter release, the full installation of the approved utility plan must be inspected and approved by the Land Use Department.

12. Runoff, erosion, and/or sedimentation from the development shall not have a significant adverse impact on the surrounding area.

A. RE-VEGETATION / WEED CONTROL PLAN

No information was provided regarding the proposed method of re-vegetation for site disturbances associated with construction. Additionally, the following county listed noxious weeds were identified on the property: dalmation toadflax, diffuse knapweed, and musk thistle. These weeds must be contained and suppressed, and dispersal of their seeds must be prevented. At this site, this would likely be accomplished through hand-pulling or herbicide application.

Prior to issuance of building or grading permits, submit to the Land Use Department for review and approval one copy of a Re-vegetation & Weed Control Plan (see enclosed handout titled "Re-vegetation" as an example). The plan should map the county listed noxious weeds known on the property and the intended control technique. For assistance in how to eradicate weeds please contact the County's weed management coordinator at 303-678-6110. Every attempt should be made to preserve the existing vegetation and minimize ground disturbance. No species on List

A, B or C in the County's 2004 Noxious Weed Management Plan may be used to meet re-vegetation requirements.

Prior to issuance of a certificate of occupancy, the full installation of the approved Re-vegetation & Weed Control Plan must be inspected and approved by the Land Use Department. All areas of exposed soil must be re-vegetated. If weather is not conducive to seeding or if adequate re-vegetation efforts have not occurred, an irrevocable letter of credit or monies deposited into a County Treasurer account must be provided to assure completion of re-vegetation. What is considered "adequate re-vegetation" is influenced by the amount of site disturbance, potential for significant erosion (steep slopes), and visibility. In all cases some level of germination and growth is required. Note that areas of disturbance not included on the site plan are still subject to reseeded. Please note that no species on List A, B or C in the county's 2004 Noxious Weed Management Plan may be used to meet Re-vegetation requirements.

B. CATCH FENCE

A catch fence or other containment device must be provided down slope of construction to prevent material from spilling down-slope.

Prior to issuance of building or grading permits, details regarding the placement and construction of the catch fence must be submitted to and approved by the Land Use Department. The placement and profile of the catch fence must be shown on the re-vegetation plan.

15. *The proposal shall be consistent with the Comprehensive Plan, any applicable intergovernmental agreement affecting land use or development, and this Code.*

The proposed structure should be consistent with the Comprehensive Plan so long as all conditions of approval listed above are implemented.

FOR YOUR INFORMATION:

ONSITE WASTEWATER SYSTEM:

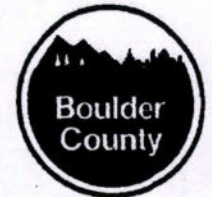
Public Health has not issued an onsite wastewater system (OWS) permit for this property. Application for and issuance of a new onsite wastewater system (OWS) permit must be made prior to system installation and before a building permit can be obtained. The OWS must be installed, inspected, and approved before a Certificate of Occupancy can be issued by the Land Use Department. The proposed absorption field must be located a minimum distance of 100' from all

wells, 25' from waterlines, 50' from waterways, and 10' from property lines. **Please contact Boulder County Public Health (303-441-1190) prior to issuance of a building permit.**

SANITARY FACILITIES: Sanitary facilities must be provided during construction and shall consist of a portable chemical toilet fabricated from steel, fiberglass or wood. Each facility must be well ventilated, must conform to State law, and must have a vented chemical tank and a separate urinal.

SUBMITTAL STICKERS: Enclosed please find a sheet of SPR submittal stickers. To ensure the proper routing, handling, and timely review of all materials submitted for consideration / review of this Site Plan Review application and conditions of approval, please affix a sticker to each prior to delivery to the Land Use Department.

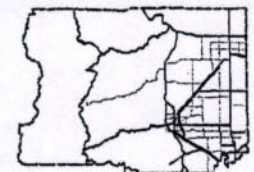
Boulder County Land Use Department PreApp - Vicinity Map



This map is for informational purposes on and, in itself, does not indicate whether property will conflict with any Comprehensive Plan or Environmental Resources. Review processes may also reveal environmental resources not found on County maps.

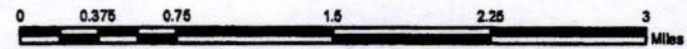
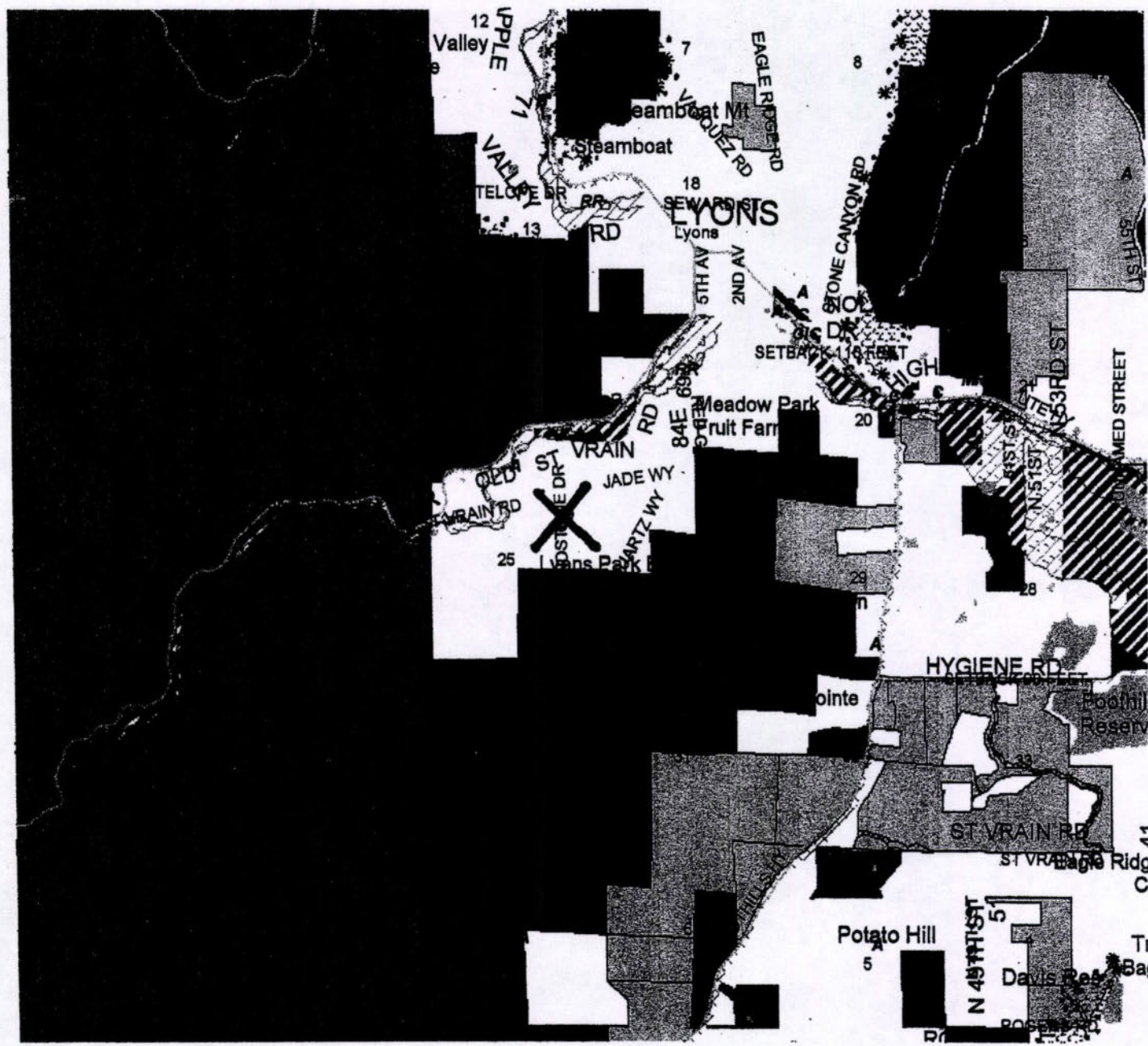
Legend

- Open Space**
 - Federal
 - State
 - Local
 - Conservation Easements
 - Gravel resources
 - Utilities and other
- Subdivision**
 - Lots
 - Nupud
- Floodplain**
 - FO Zoning District
- Map Location**



This map is for illustrative purposes only, and is not suitable for parcel-by-parcel decision making. The areas depicted here are approximate. More site-specific studies may be required to draw accurate conclusions.

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









Boulder County Land Use Department PreApp - Location Map

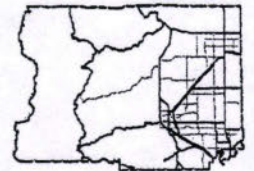


This map is for informational purposes only and, in itself, does not indicate whether property will conflict with any Comprehensive Plan or Environmental Resources. Review processes may also reveal environmental resources not found on County maps.

Legend

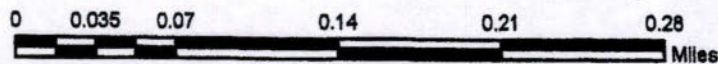
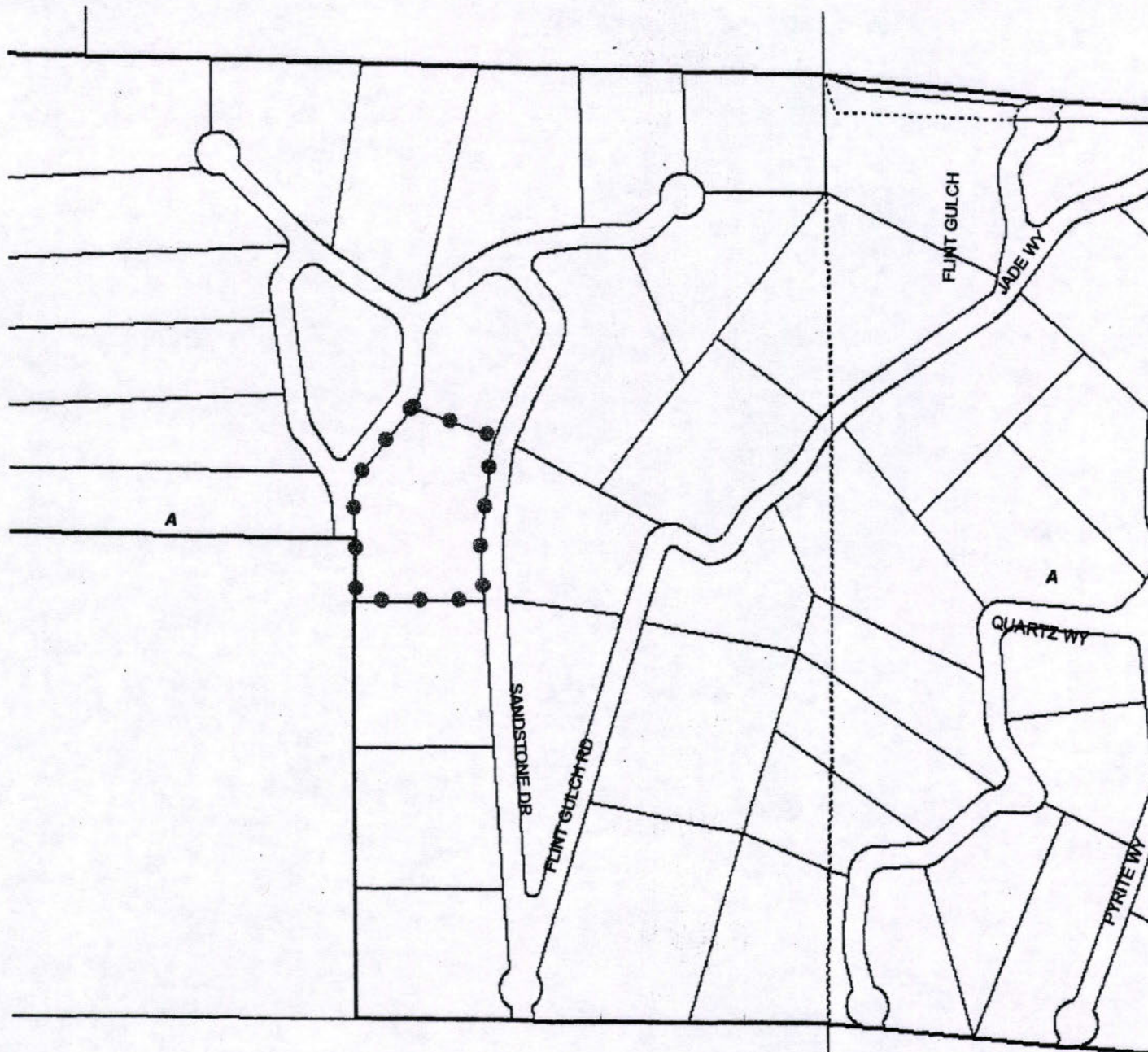
-  Archeologically Sensitive Travel Routes
-  Municipalities
-  Archeologically Sensitive Areas
-  Open Corridors, Roadside
-  Open Corridors, Streamside
-  Overland Habitat Connectors
-  Stream Habitat Connectors
-  Significant Riparian Corridors
-  Critical Wildlife Habitats
-  Rare Plant Areas
-  Floodplain - FO Zoning District
-  Environmental Conservation Areas
-  Natural Landmarks and Areas
-  Significant Natural Communities
- Significant Agricultural Lands**
-  National Importance
-  Statewide Importance
-  Local Importance

Map Location



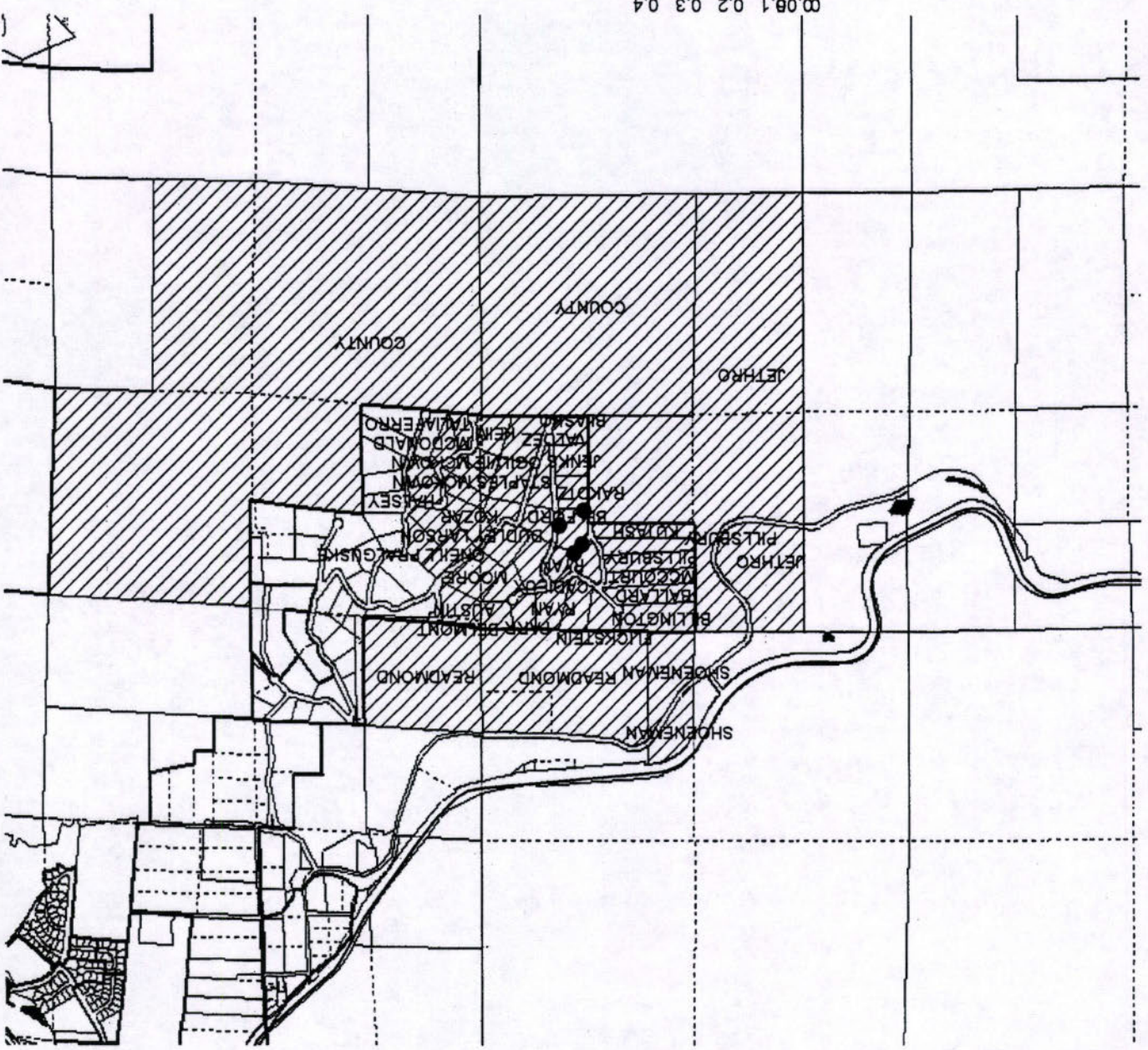
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Boulder County

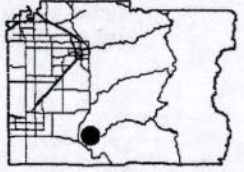
Land Use Department
Surrounding Property Owners



Legend

- Subject Parcel
- Surrounding Properties

Map Location



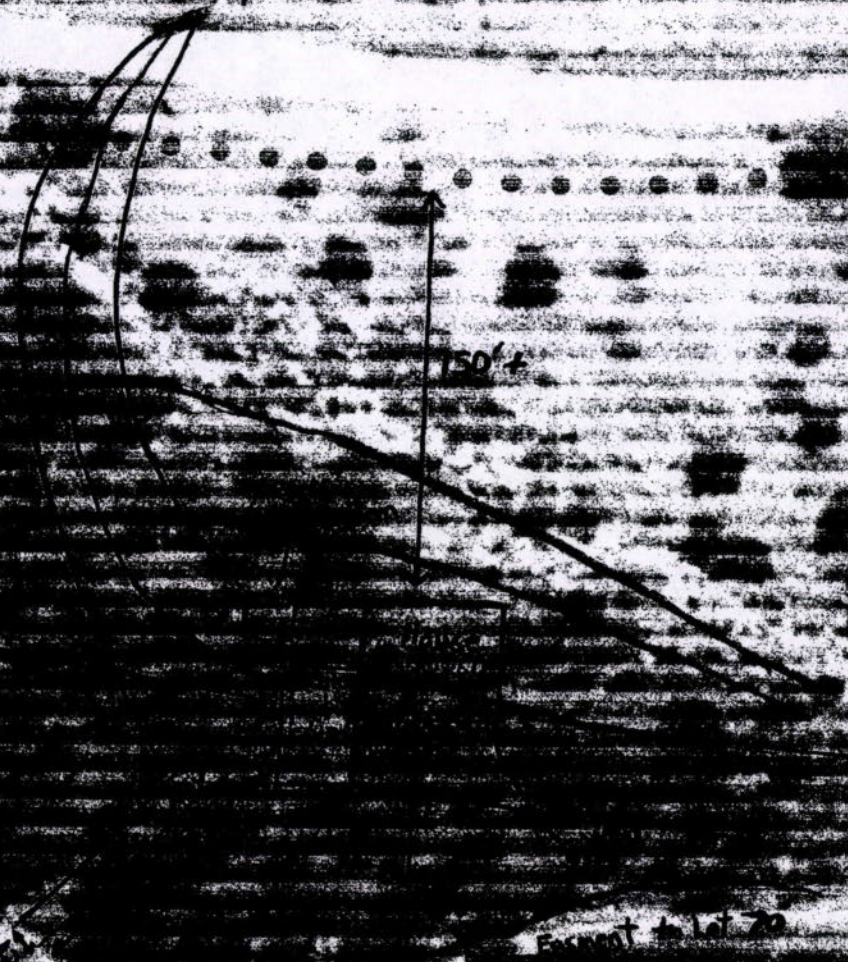
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Hoodfield HI
11-71 Sandstone
residential
apartments

STN
11-20-66
7-25-65
Blairline

Cut and fill only at parking pad,
driveway and septic area.



Exempt 4/1/70



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.

Project Identification

Project Name:
Hirschfeld Residence

Property Address/Location:
0 Sandstone Dr.
Lyons, CO 80540

Current Owner:
David E. and Teri L. Hirschfeld

Size of Property in Acres:
approx. 4 acres

Structure Information

STRUCTURE #1:

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

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

| PROPOSED FLOOR AREA (new construction only) | | |
|---|---------------------|--------------------|
| Finished | Unfinished | Total |
| Basement | 2,416 sq/ft | 2,416 sq/ft |
| 1st Floor | 2,600 sq/ft | 2,600 sq/ft |
| 2nd Floor | | |
| Garage <input type="checkbox"/> Detached <input checked="" type="checkbox"/> Attached | 1,078 sq/ft | 1,078 sq/ft |
| Covered Deck | 180 sq/ft | 180 sq/ft |
| Total | 3,1674 sq/ft | 6,274 sq/ft |

Height above existing grade: 26 ft.

Exterior wall:
- Material: Stucco
- Color: beige

Roofing:
- Material: asphalt-fiberglass
- Color: grey

When completed, this structure will have a total of 3 bedrooms.

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 |
| 1st Floor | sq/ft | sq/ft |
| 2nd Floor | sq/ft | sq/ft |
| Garage <input type="checkbox"/> Detached <input type="checkbox"/> Attached | sq/ft | sq/ft |
| Covered Deck | sq/ft | sq/ft |
| Total | sq/ft | sq/ft |

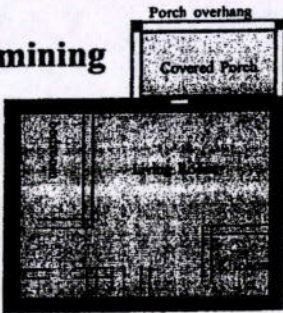
Height above existing grade: _____

Exterior wall:
- Material: _____
- Color: _____

Roofing:
- Material: _____
- Color: _____

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

Determining Floor 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.

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

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

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 | | 111 cu. yds. | 111 cu. yds. |
| Berms | | | |
| Other Grading: Side walk Patio pad | | 25.9 cu. yds. | 25.9 cu. yds. |
| Total | | | Box 1 136.9 cu. yds. |

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

| | Cut | Fill - Backfill | Total |
|------------|-----------------|-----------------|-----------------|
| Foundation | 666.60 cu. yds. | 290.7 cu. yds. | 957.30 cu. yds. |

Material cut from foundation or excavation to be removed from the property. Excess material will be transported to the following location:

239.0 cu. yds.

Bear Industrial Park - Weld County

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.

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.

.....
 • Is your property gated
 • and locked? If county
 • personnel cannot access the
 • property, then it could cause
 • delays in reviewing your
 • application.

Signature David Hirschfeld Date 7-25-05

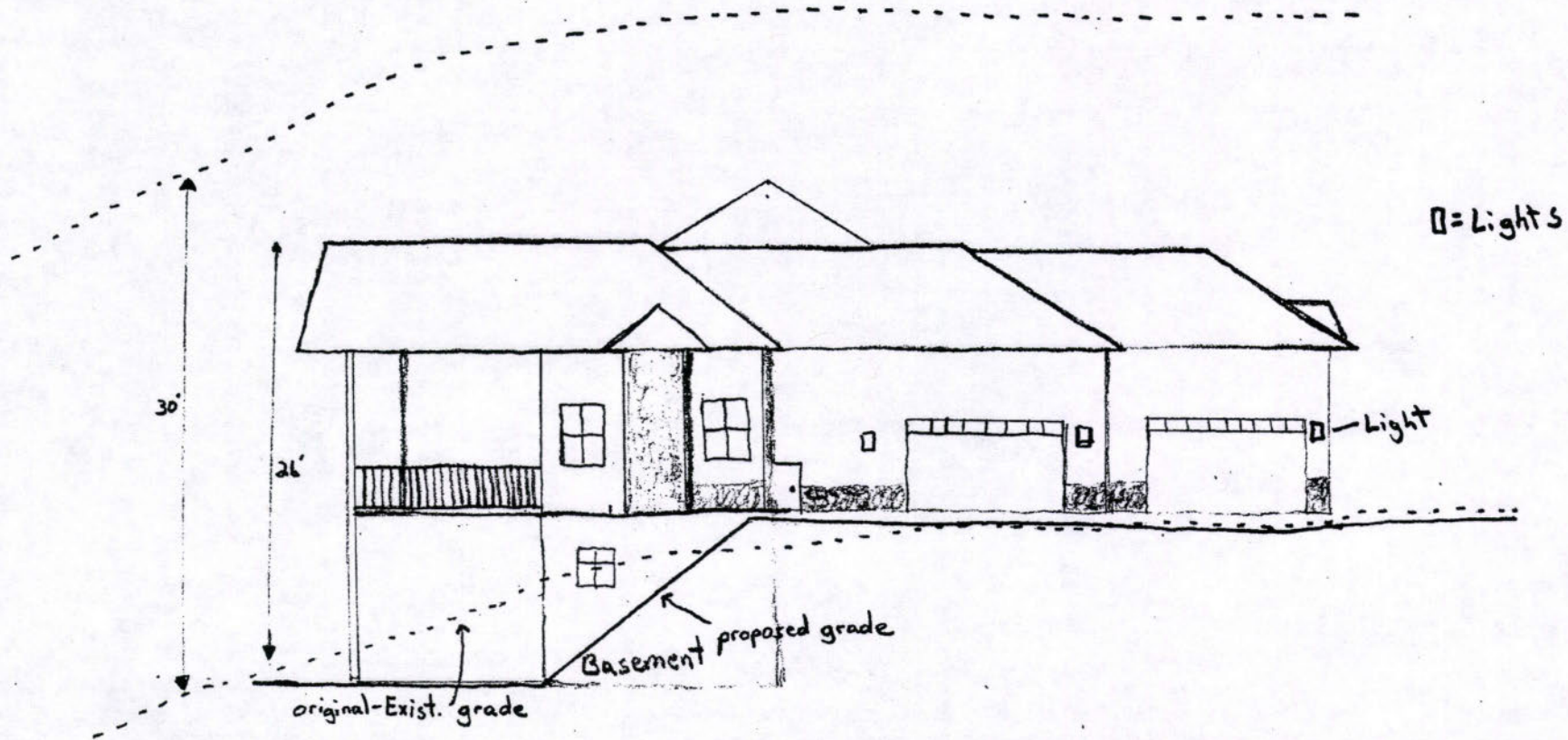
ELEVATION PLANS

Please find the enclosed elevation drawings. Also note the attached pictures of proposed house. Similar colors and materials to those in the pictures will be used. The outside of home is beige stucco with stone and natural wood beam accents. The roof has gray asphalt shingles. Thank you.

*Also note proposed lighting fixture locations.
See fixture choices on separate sheet.*

Elevation Drawing

North Elevation



□ = Lights

Light

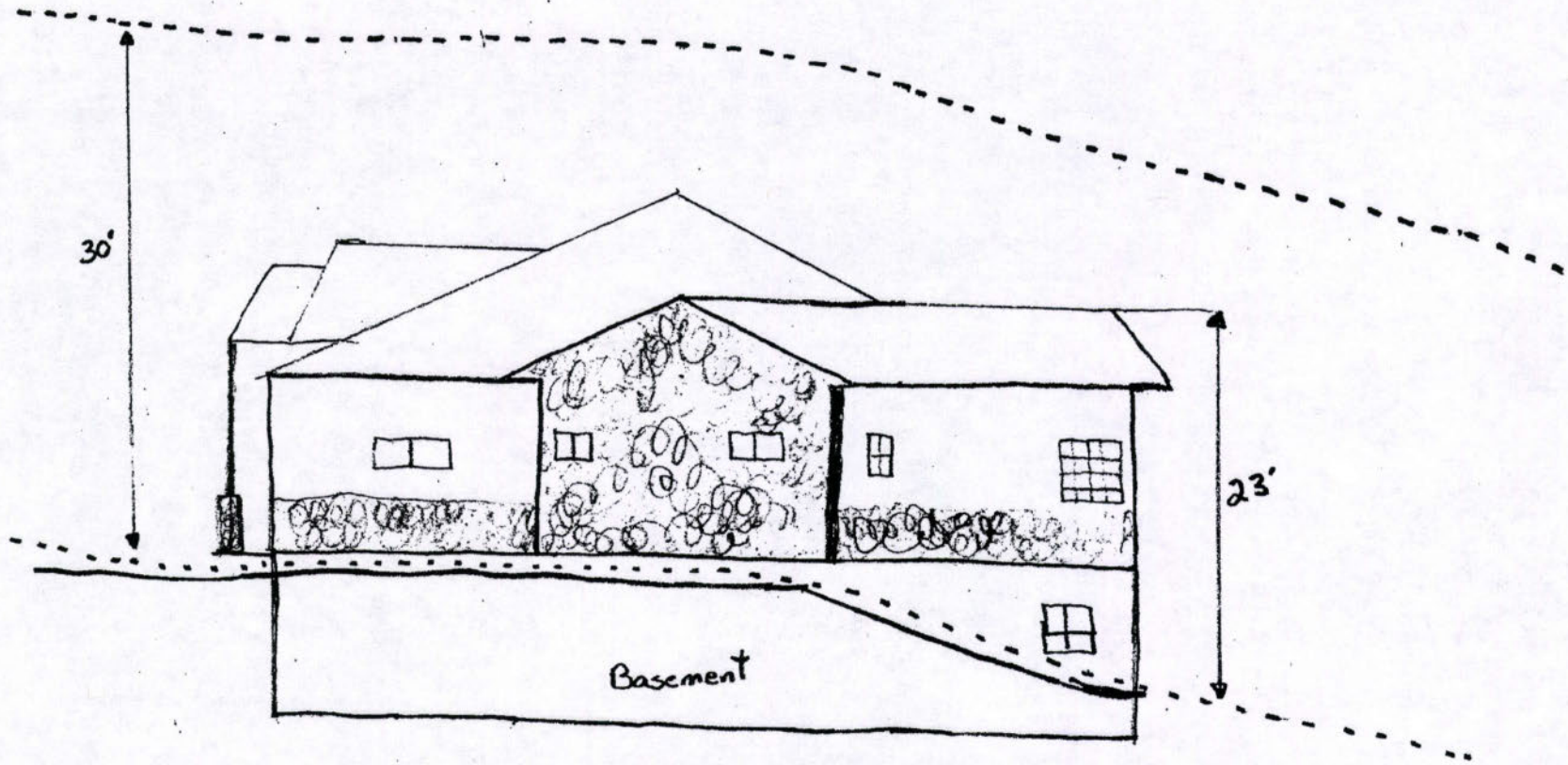
original-Exist. grade

Basement proposed grade

scale: $\frac{1}{2}'' = 5.0'$

Elevation Drawing

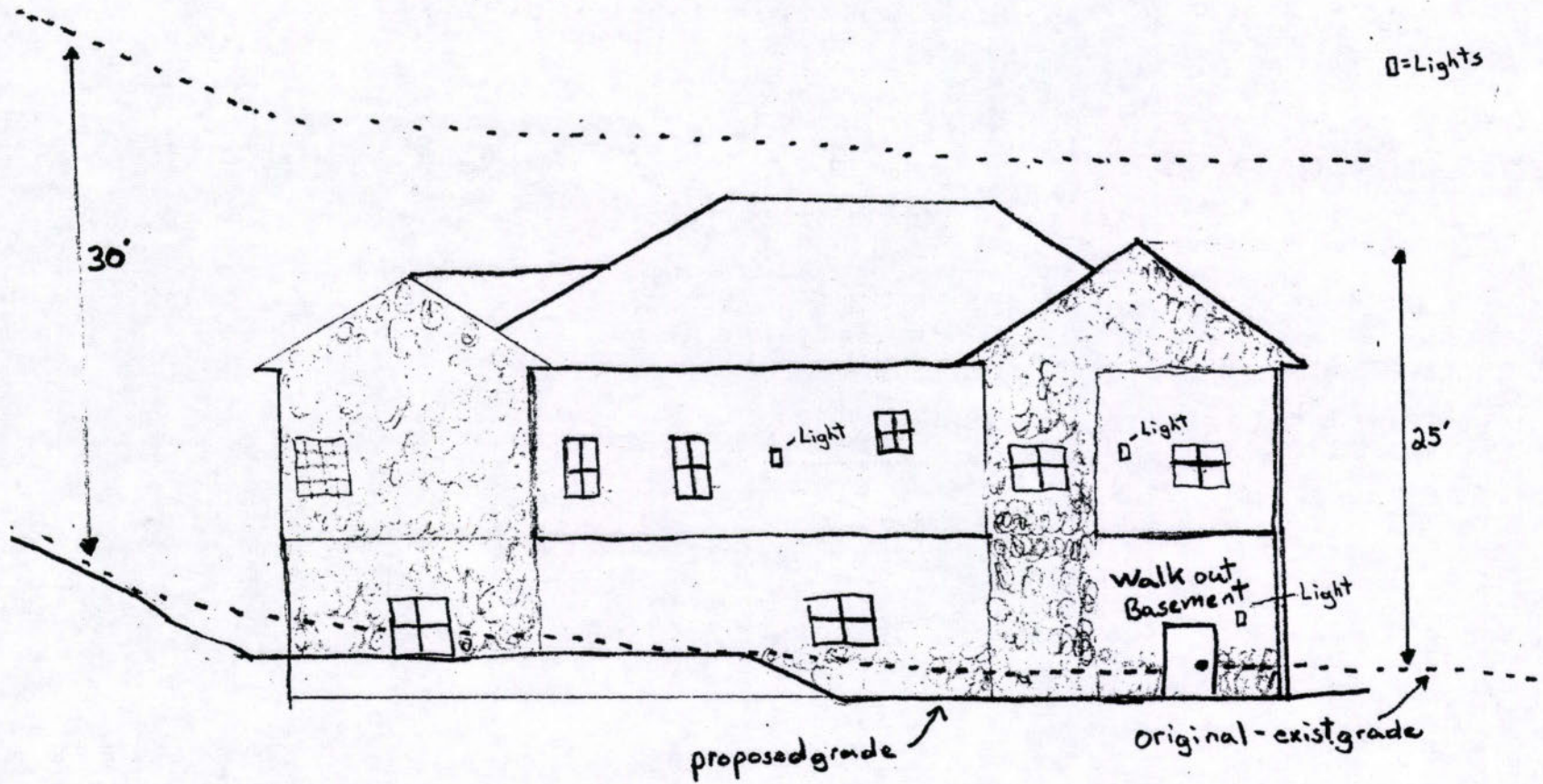
South Elevation



Scale: $\frac{1}{2}'' = 5.0''$

Elevation Drawing

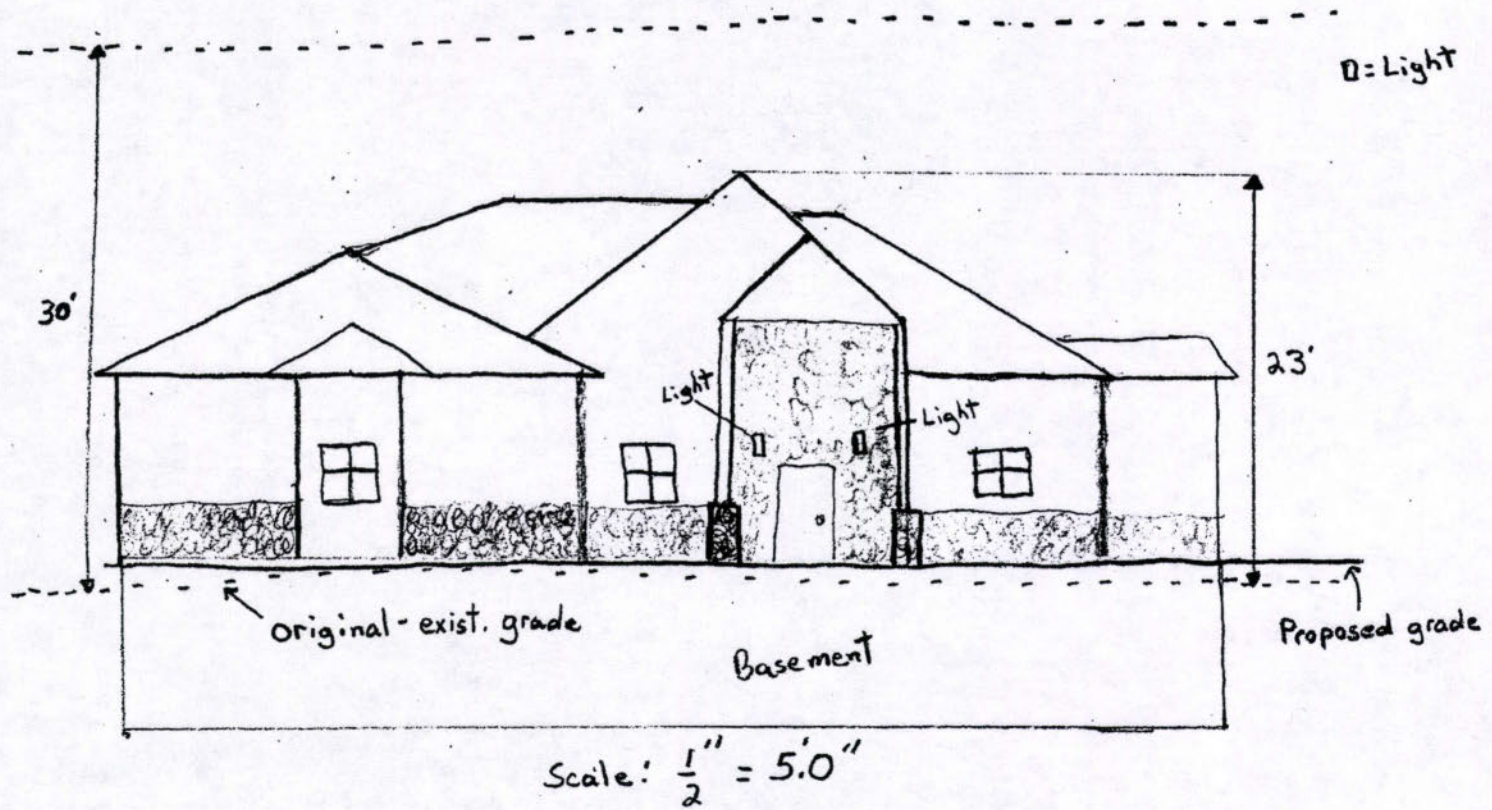
East Elevation

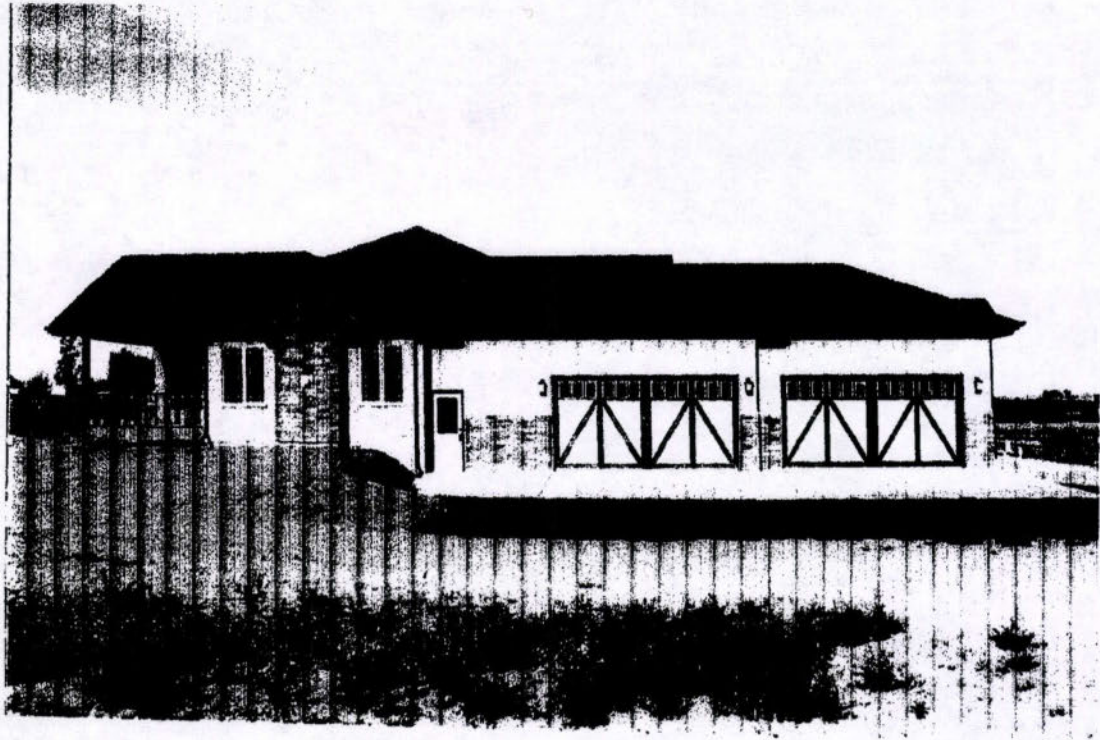


Scale: $\frac{1}{2}'' = 5'0''$

Elevation Drawing

West Elevation





North Side

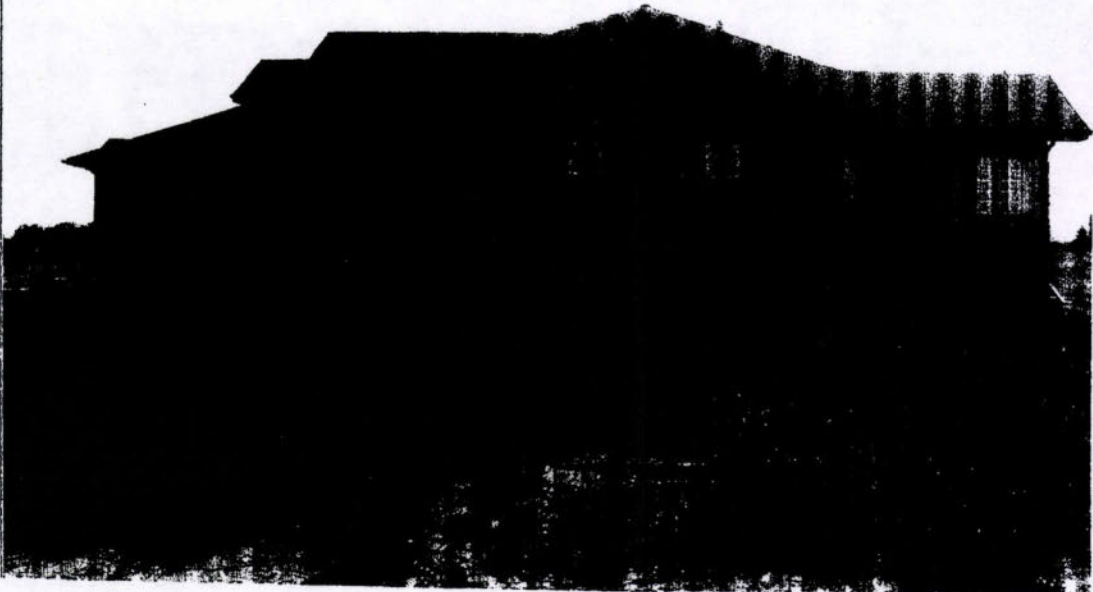


West Side



East Side

will be walkout basement



South Side

Circle 1, light fixtures are the fixtures we are planning on using

Front Range Lighting

480 17th Ave.
Longmont, CO 80501
303-664-0080
www: Frontrangelighting.com

