

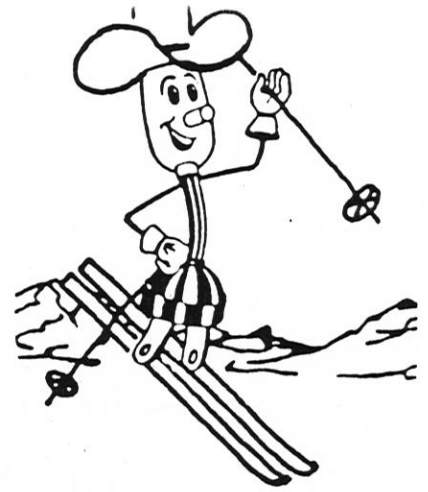
Light

Power

Heat

## Mountain Parks Electric, Inc.

Main Office - 81 West Agate Avenue  
P.O. Box 170 • Granby, Colorado 80446-0170  
Telephone (303) 887-3378 • Fax (303) 887-3996



June 21, 1996

Whitham Farms, LLC  
3225 Moore Lane  
Ft. Collins, CO 80526

Re: Right-of-Way Easement 96-20

Dear Customer:

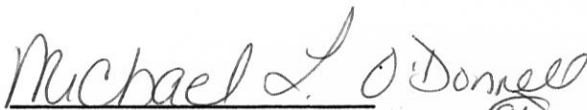
Thank you for recently signing a Right-of-Way Easement for Mountain Parks Electric, Inc.

Please find enclosed our check made payable to you for the amount of \$10.00 for the good and valuable consideration and as receipt of the transaction.

If you should have any questions in this regard, please advise.

Sincerely,

MOUNTAIN PARKS ELECTRIC, INC.



Michael L. O'Donnell,  
Right-of-way Representative

MLO/br  
enclosures

ELECTRIC DISTRIBUTION FACILITIES AGREEMENT  
(LINE EXTENSION FOR PERMANENT SERVICE)

THIS AGREEMENT made between MOUNTAIN PARKS ELECTRIC, INC., a Colorado Corporation (hereinafter called the Association) and WHITHAM FARMS, LLC (hereinafter called the Consumer). The above Consumer has requested the Association to install overhead & underground (overhead/underground) electric distribution facilities to provide electric service to Mountain Parks Electric's Map Location 72-8,9-3, located in part of Section 34<sup>27</sup>, Township 3 South, Range 78 West of the 6th P.M., in the County of Summit in the State of Colorado.

The Association will provide said facilities in accordance with the Rules, Regulations and Line Extension Policies as approved by and on file with Mountain Parks Electric, Inc. Corporate Headquarters located in Granby, Colorado, in accordance with the By-Laws of the Cooperative, for **PERMANENT SERVICE**, according to the R1 Rate Classification, with a Monthly Facility or Permanent Monthly Minimum of \$ 5.50.

THEREFORE THE PARTIES AGREE to the mutual covenants and agreements as follows:

1. The Association shall install, own, operate and maintain the primary overhead/underground Electric Distribution Facilities to provide electric service to the location covered by this agreement only.
2. The Consumer agrees to pay the Association, in advance of construction, a **NON-REFUNDABLE** Payment of \$ 192.00 for **TEMPORARY CONSTRUCTION SERVICE**. This service is for project construction only and will be billed at the C-1 Rate. If temporary service is in use more than eighteen (18) months, the service must be reevaluated and either retired or meet the requirements to be reclassified as **PERMANENT SERVICE**.
3. The Consumer agrees to pay the Association, in advance of construction, as a Construction Payment, all estimated cost for electric distribution facilities necessary to service Applicant or Applicants in excess of the Allowed Construction Allowance, plus a Distribution Capacity Charge. The Construction Payment only shall be refunded in part or in its entirety during a five-year period commencing with Extension Completion Date. Refund to be made at the rate of 24% of the applicable annual revenue and any line extension refund per Sheet No. 43.0 (6/95) that may apply. The refund(s) shall be limited to the amount of the Construction Payment. At the end of said five-year period, any remaining Construction Payment becomes non-refundable. No interest will be paid during the five-year period. Refundable Construction Payment shall be \$ 16,763.10 for single phase, 14.4/120/240volt, 200 amp, Electric Service.
4. **THE TOTAL PAYMENT** for Construction Payment, Temporary Construction Service, Capacity Charge of \$ 600.00, a Connect Fee of \$ 24.00, and Membership Fee of \$ 5.00 shall be \$ 17,584.10.

BEFORE COMMENCEMENT OF CONSTRUCTION, THE FOLLOWING IS REQUIRED:

Two (2) copies of the contract signed and returned to us with the above Total Payment and a Membership Application, if required.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed this 28th day of May, 19 96.

Robert L. Zimmerman  
Witness

WHITHAM FARMS, LLC  
Consumer

BY: DW Whitham Title Manager

Ken Schaengold  
Witness

MOUNTAIN PARKS ELECTRIC, INC.  
James K. Iverson  
James K. Iverson, General Manager

PERMIT APPLICATION FORM

Application must be complete where applicable. Type or print in BLACK INK. No overstrikes or erasures unless initialed.

- ( ) A PERMIT TO USE GROUND WATER
- A PERMIT TO CONSTRUCT A WELL
- FOR: ( ) A PERMIT TO INSTALL A PUMP
- ( ) REPLACEMENT FOR NO. \_\_\_\_\_
- ( ) OTHER \_\_\_\_\_
- WATER COURT CASE NO. \_\_\_\_\_

(1) APPLICANT - mailing address

NAME David W. Whitham  
 STREET 3225 Moore Lane  
 CITY Fort Collins, CO 80526  
(State) (Zip)  
 TELEPHONE NO. (303) 226-6411

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. \_\_\_\_\_ / \_\_\_\_\_  
 Basin \_\_\_\_\_ Dist. \_\_\_\_\_

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

(2) LOCATION OF PROPOSED WELL

County Summit  
SE  $\frac{1}{4}$  of the SW  $\frac{1}{4}$ , Section 27  
 Twp. 3 S Rng. 78 W. 674 P.M.  
(N.S) (E.W)

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) 15gpm  
 Average annual amount of ground water to be appropriated (acre-feet): 3  
 Number of acres to be irrigated: 1 or less  
 Proposed total depth (feet): 200-350  
 Aquifer ground water is to be obtained from:  
Metamorphic Rock Formation of a Tributary of Blue River  
 Owner's well designation \_\_\_\_\_

GROUND WATER TO BE USED FOR:

- ( ) HOUSEHOLD USE ONLY - no irrigation (0)
- DOMESTIC (1) ( ) INDUSTRIAL (5)
- ( ) LIVESTOCK (2) ( ) IRRIGATION (6)
- ( ) COMMERCIAL (4) ( ) MUNICIPAL (8)
- ( ) OTHER (9) \_\_\_\_\_

DETAIL THE USE ON BACK IN (11)

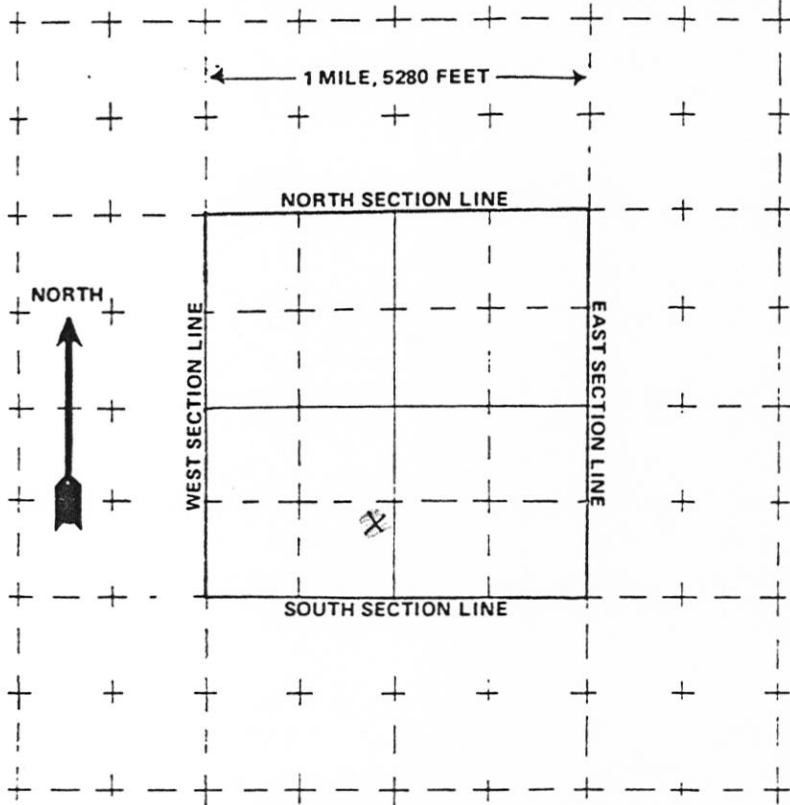
APPLICATION APPROVED

PERMIT NUMBER \_\_\_\_\_  
 DATE ISSUED \_\_\_\_\_  
 EXPIRATION DATE \_\_\_\_\_  
 \_\_\_\_\_ (STATE ENGINEER)  
 BY \_\_\_\_\_  
 I.D. \_\_\_\_\_ COUNTY \_\_\_\_\_

(4) DRILLER

Name Licensed  
 Street \_\_\_\_\_  
 City \_\_\_\_\_  
(State) (Zip)  
 Telephone No. \_\_\_\_\_ Lic. No. \_\_\_\_\_

(5) **THE LOCATION OF THE PROPOSED WELL** and the area on which the water will be used must be indicated on the diagram below. Use the CENTER SECTION (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile  
Each small square represents 40 acres.

**WATER EQUIVALENTS TABLE (Rounded Figures)**

An acre-foot covers 1 acre of land 1 foot deep  
1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm)  
A family of 5 will require approximately 1 acre-foot of water per year.  
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.  
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) **THE WELL MUST BE LOCATED BELOW** by distances from section lines.

1150 ft. from South (north or south) sec. line  
2500 ft. from West (east or west) sec. line

LOT 3 BLOCK \_\_\_\_\_ FILING # \_\_\_\_\_  
SUBDIVISION Acorn Creek Ranch Estate

(7) **TRACT ON WHICH WELL WILL BE LOCATED** Owner: David W. Whitham  
No. of acres 40. Will this be the only well on this tract? yes

(8) **PROPOSED CASING PROGRAM**

Plain Casing  
8 in. from above ground ft. to 30 ft.  
\_\_\_\_\_ in. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Perforated casing  
8 in. from 30 ft. to 200-350 ft.  
\_\_\_\_\_ in. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

(9) **FOR REPLACEMENT WELLS** give distance and direction from old well and plans for plugging it:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(10) **LAND ON WHICH GROUND WATER WILL BE USED:**

Owner(s): David W. Whitham No. of acres: 40  
Legal description: See attached - Also known as Tract 3, Acorn Creek Ranch Estate

(11) **DETAILED DESCRIPTION** of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used. one dwelling to be served, maximum of 4 horses to be watered and less than 1/2 ac. landscape irrigation. Sewage disposal by septic system.

(12) **OTHER WATER RIGHTS** used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right	Used for (purpose)	Description of land on which used
_____	_____	_____

(13) **THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.**

David W. Whitham  
SIGNATURE OF APPLICANT(S)

OFFICE OF THE STATE ENGINEER  
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203  
(303) 866-3581

LIC

APPLICANT

WELL PERMIT NUMBER	<u>181289</u>	-	-	-
DIV. 5	CNTY. 59	WD 36	DES. BASIN	MD

Lot: 3 Block: Filing: Subdiv: ACORN CREEK RANCH ESTATES

DAVID W WHITHAM  
3225 MOORE LANE  
FT COLLINS CO 80526

( 303)226-6411

APPROVED WELL LOCATION  
SUMMIT COUNTY

SE 1/4 SW 1/4 Section 27  
Twp 3 S RANGE 78 W 6th P.M.

DISTANCES FROM SECTION LINES

1150 Ft. from South Section Line  
2500 Ft. from West Section Line

PERMIT TO CONSTRUCT A WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT  
CONDITIONS OF APPROVAL

- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction and Pump Installation Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 17.
- 3) Approved pursuant to CRS 37-92-602(3)(b)(II)(A) as the only well on a tract of land of 40 acres described as that portion of the SE 1/4 of the SW 1/4 of Sec. 27, Twp. 3 South, Rng. 78 West of the 6th P.M., Summit County, being more particularly described on the attached exhibit "A" as Tract 3, Acorn Creek Ranch Estates.
- 4) The use of ground water from this well is limited to fire protection, ordinary household purposes inside three (3) single family dwellings, the irrigation of not more than one (1) acre of home gardens and lawns and the watering of domestic animals.
- 5) The maximum pumping rate shall not exceed 15 GPM.
- 6) The return flow from the use of this well must be through an individual waste water disposal system of the non-evaporative type where the water is returned to the same stream system in which the well is located.
- 7) This well shall be constructed not more than 200 feet from the location specified on this permit.

JD 8-29-94

OWNER'S COPY

APPROVED  
JD2

*Hal D. Simpson*  
\_\_\_\_\_  
State Engineer

*Joy Deaton*  
\_\_\_\_\_  
By

Receipt No. 0372431

DATE ISSUED AUG 30 1994

EXPIRATION DATE AUG 30 1996

FORM NO. GWS-31 - 11/90

WELL CONSTRUCTION AND TEST REPORT STATE OF COLORADO, OFFICE OF THE STATE ENGINEER

For Office Use only

1. WELL PERMIT NUMBER 181289

2. OWNER NAME(S) DAVID W WHITHAM Mailing Address: 3225 MOORE LN City, St. Zip FORT COLLINS CO Phone (970) 226-6411

3. WELL LOCATION AS DRILLED: SE 1/4 SW 1/4, Sec. 27 Twp. 3 S, Range 78 W DISTANCES FROM SEC. LINES: 1150 ft. from S Sec. line. and 2500 ft. from W Sec. line. OR SUBDIVISION: ACORN CREEK LOT 3 BLOCK FILING(UNIT) STREET ADDRESS AT WELL LOCATION:

4. GROUND SURFACE ELEVATION ft. DRILLING METHOD AIR PERCUSSION DATE COMPLETED NOV 15, 1995 TOTAL DEPTH 305 ft. DEPTH COMPLETED 305 ft.

5. GEOLOGIC LOG: Depth Description of Material (Type, Size, Color, Water Location)

0-10 SANDSTONE 10-30 PORPHYRY 30-305 SHALE

Table with 3 columns: Hole Diam. (in.), From (ft), To (ft). Rows: 8, 0, 20; 6, 20, 305

Table with 5 columns: OD (in), Kind, Wall Size, From(ft), To(ft). Rows: 6 5/8 STEEL 1.280 1 20; 4 1/2 PVC 1.214 15 145; 4 1/2 PVC 1.214 145 305

8. FILTER PACK: Material Size Interval

9. PACKER PLACEMENT: Type CONF Depth 100

Table with 5 columns: Material, Amount, Density, Interval, Placement. Row: CEMENT 2 SAC 15.6 10-20 VIBRATED

REMARKS:

11. DISINFECTION: Type HTH Amt. Used 7 ONZ

12. WELL TEST DATA: TESTING METHOD AIR Static Level 100 ft. Date/Time measured NOV 13, 1995 Production Rate 20 gpm. Pumping level 300 ft. Date/Time measured NOV 15, 1995 Test length (hrs.) 1

13. I have read the statements made herein and know the contents thereof, and that they are true to my knowledge. [Pursuant to Section 24-4-104 (13)(a) C.R.S., the making of false statements herein constitutes perjury in the second degree and is punishable as a class 1 misdemeanor.]

CONTRACTOR ARROW DRILLING CO Phone (303) 421-8766 Lic. No. 1009 Mailing Address 2127 ELDERBERRY RD GOLDEN CO 80401

Name/Title (Please type or print) Signature Date PAUL BERGLUND/DRILLER P Berglund NOV 22, 1995



PERMIT, APPLICATION AND  
DESIGN SHALL BE KEPT ON  
THE JOB SITE

SUMMIT COUNTY  
COMMUNITY DEVELOPMENT DIVISION  
ENVIRONMENTAL HEALTH DEPARTMENT

INDIVIDUAL SEWAGE DISPOSAL SYSTEM PERMIT

Permit: S-3209  
Status: ISSUED  
Issued: 04/01/1996  
Renewed: 00/00/0000  
To Expire: 04/01/1997

INSTALL: Install Septic Permit

Lot: Block: Tract: 3  
Sub: ACORN CREEK RANCH ESTATES  
Address: 189 ARROWHEAD BLUFF 2403 SC  
Parcel No: 14-06065

Filing:

Owner: WHITHAM FARMS LLC

(970) 226-6411

Address: 3225 MOORE LN  
City: FORT COLLINS CO

80526

CONSTRUCTION PARAMETERS

Tank Capacity (gal): 1750 No. Compartments: 2 Minimum  
Dosing: P Pump

ISDS Type: M Mound  
Minimum Field Size (sq.ft.): 703.00  
Dimensions: 1 @ 12.00ft. x 60.00ft.  
Maximum Depth (in.):  
Minimum Depth (in.): 30

SPECIAL REQUIREMENTS

1. LEACH FIELD TO BE VENTED TO THE ATMOSPHERE A MINIMUM OF EIGHT (8) INCHES ABOVE FINAL GRADE.
2. MINIMUM DEPTH REFERS TO HEIGHT OF FILTER MATERIAL ABOVE GRADE.
3. RECHECK LOT IN SPRING TO FINAL ON-SITE FORM. DISTANCES TO SURFACE WATER AND DRY DITCHES NEED TO BE OBTAINED AND APPROVED PRIOR TO CONSTRUCTION.
4. USE GOULDS WE0511H (0.5 HP) PUMP, OR EQUIVALENT APPROVED BY ENGINEER.
5. PERFORATED LATERALS MUST BE DRILLED ACCORDING TO ENGINEER'S DESIGN (40.2" C-C).
6. INSTALLATION OF SYSTEM IS LIMITED TO THE MONTHS OF JULY, AUGUST OR SEPTEMBER (CRITICAL THAT SYSTEM BE INSTALLED WHEN SOIL IS IN A DRY STATE).
7. SYSTEM IS APPROVED FOR A FIVE (5) BEDROOM HOME WITH NO HOT TUB AND NO FUTURE ADDITIONS.

PERMISSION IS HEREBY GRANTED TO THE OWNER OR HIS AGENT TO PERFORM THE WORK INDICATED ABOVE IN ACCORDANCE WITH THE SUMMIT COUNTY REGULATIONS. THIS PERMIT IS TO REMAIN IN FULL FORCE AND EFFECT FOR ONE (1) YEAR FROM THE DATE OF ISSUE, UNLESS INVALIDATED BY A CHANGE OF DESIGN OR BY NONCOMPLIANCE WITH THE REGULATIONS. PLANS AND SPECIFICATIONS OF THE PROPOSED SEWAGE DISPOSAL SYSTEM HAVE BEEN REVIEWED AND ARE CONSIDERED SATISFACTORY.

APPROVED BY

SUMMIT COUNTY ENVIRONMENTAL HEALTH



ACTIVITY/PERMIT NO. 5-3209

SUMMIT COUNTY  
COMMUNITY DEVELOPMENT DEPARTMENT  
ENVIRONMENTAL HEALTH DIVISION

APPLICATION FOR AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM PERMIT

PROPERTY TAX SCHEDULE NO. 1406065

~~TRACT~~ <sup>TRACT</sup> #3 BLOCK      FIL      TRACT      SUBDIVISION ACORN CREEK RANCH ESTATES

SECTION      TOWNSHIP      RANGE     

STREET ADDRESS: # 0189 NAME ARROWHEAD BLUFF ROAD S.C.R. # 2403

\*\*\*\*\*

PROPERTY OWNER WHITHAM FARMS LLC <sup>DAVID WHITHAM</sup> <sub>MARY</sub> PHONE 970-226-6411

ADDRESS 3225 MOORE LANE, FORT COLLINS, CO 80526

APPLICANT JERRY DIVINE, PE PHONE 970-668-3646

ADDRESS Box 211 FRISCO CO 80443

LOT SIZE 40 +/- ACRE(S)  
STRUCTURE TYPE: COMMERCIAL      OR RESIDENTIAL X  
WATER SUPPLY: PRIVATE (WELL) X OR PUBLIC       
CLOTHES WASHER X DISHWASHER X GARBAGE DISPOSAL X HOT TUB ?  
TOTAL NUMBER OF BEDROOMS 5  
ANY FUTURE BEDROOM ADDITIONS PLANNED? Y      N X HOW MANY?     

APPROPRIATE FEES MUST BE SUBMITTED PRIOR TO ARRANGING THE INITIAL SITE INSPECTION(S). THE SITE INSPECTION DOES NOT GUARANTEE THE ISSUANCE OF A PERMIT. PERMIT FEE OF \$150.00 MUST BE PAID TO SUMMIT COUNTY ENVIRONMENTAL HEALTH PRIOR TO PERMIT ISSUANCE. THE PERMIT ISSUANCE IS BASED ON THE ABOVE INFORMATION, THE ILLUSTRATED PLOT PLAN AND ALL OTHER INFORMATION AS SUBMITTED AND APPROVED BY THE DIVISION. THE INDIVIDUAL SEWAGE DISPOSAL SYSTEM PERMIT MUST BE ISSUED BEFORE A BUILDING PERMIT CAN BE OBTAINED. PLEASE CONTACT THIS DIVISION IF YOU HAVE QUESTIONS OR REQUIRE ASSISTANCE.

APPLICATION FOR AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM IS HEREBY SUBMITTED. THE UNDERSIGNED ACKNOWLEDGES THAT THE ABOVE INFORMATION IS TRUE AND THAT FALSE INFORMATION WILL INVALIDATE THE APPLICATION AND ANY SUBSEQUENT PERMIT. THIS APPLICATION IS VALID FOR ONE (1) YEAR.

SIGNATURE OF APPLICANT Jerry Divine DATE 10/13/95

\*\*\*\*\*

Environmental Health Officer Application Approval SB Date 4/1/96

Environmental Health Officer Approval for Permit SB Date 4/1/96

Date Permit Issued 4/1/96

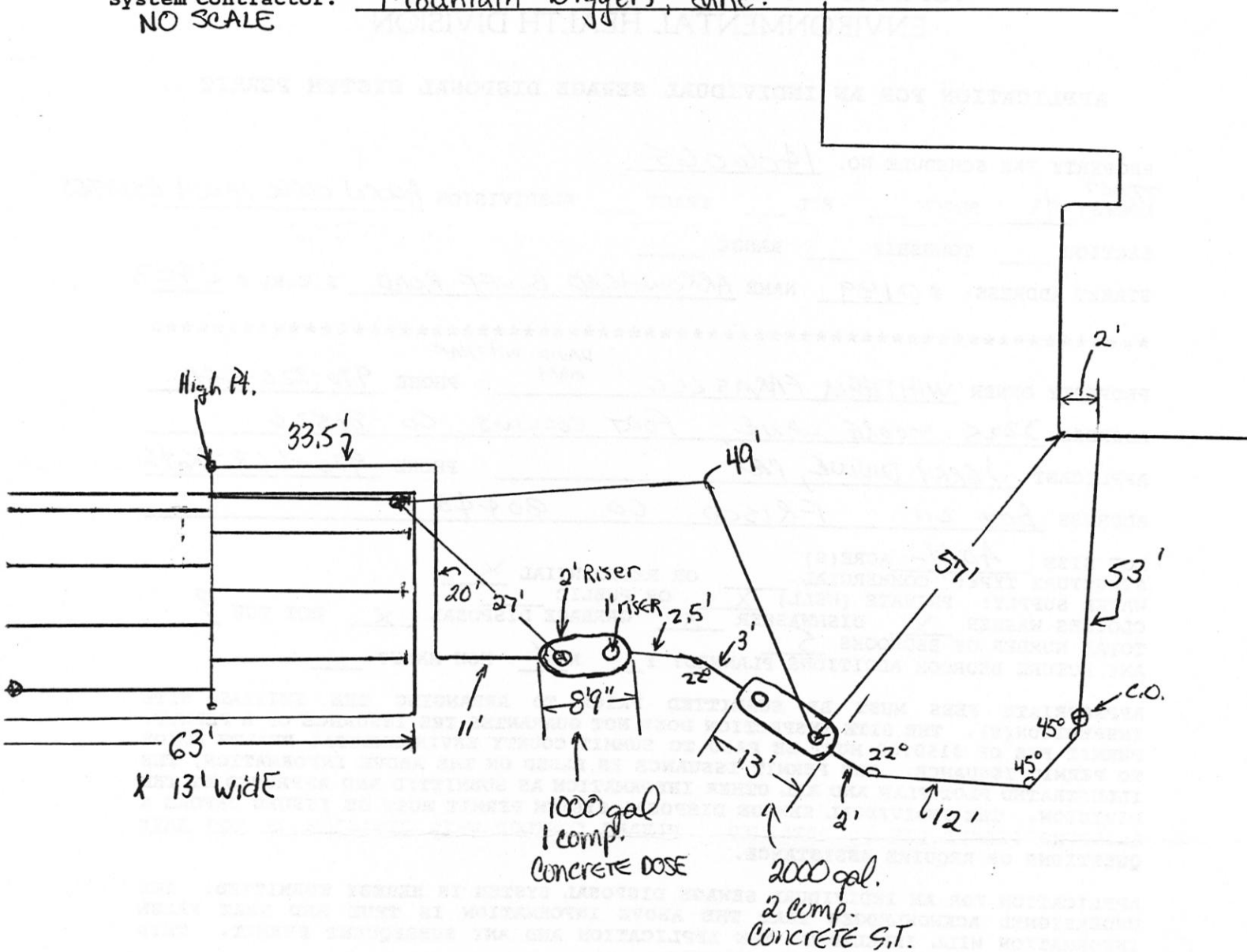
Environmental Health Officer Final Approval Bull Shal Date 2/27/97

FILE NO.: 1925



AS-BUILT INFORMATION: (Prepared by Environmental Health Department)

Tank Capacity 2000 Gallons No. Compartments 2 Material CONCRETE  
 Depth to Top of Tank 8 " Risers Y \_\_\_ N  Height of Risers \_\_\_\_\_ "  
 Type and Model of Dosing Device Goulds 0.5 HP  
 Field Dimensions 1 x 63 ' x 13 ' Total Sq. Ft. 819 '  
 Avg. Field Depth \_\_\_\_\_ " Height of Filter Material 30(+) "  
 System Contractor: Mountain Diggers, Inc.  
 NO SCALE

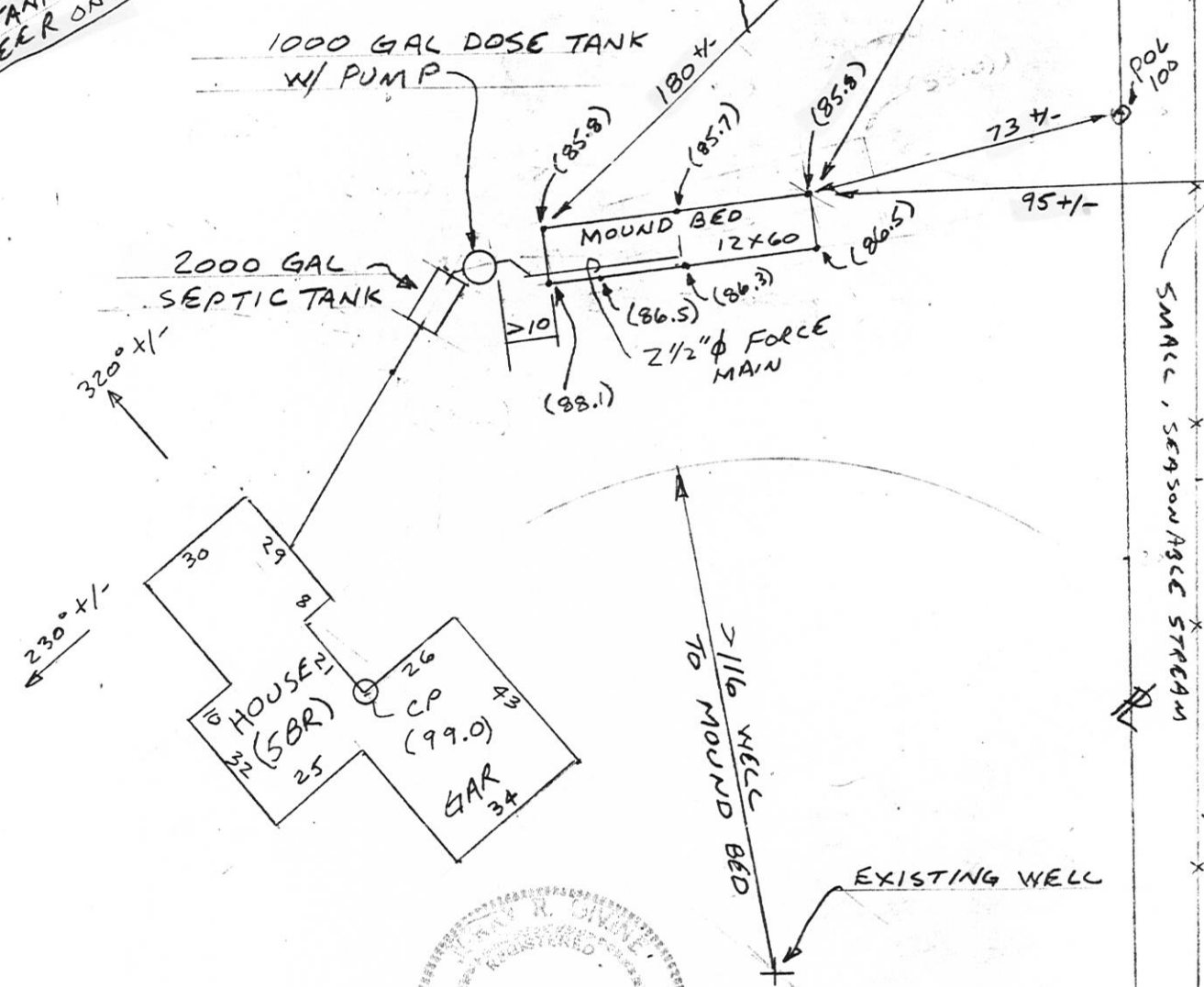


USFS 1325 +/-

DAVE

(x.x.x) = EXISTING GRADE (+/-)

NOTE: CONTRACTOR SHALL FIELD FIT TANKS. CONSULT W/ ENGINEER ON PUMP



SITE PLAN  
 TRACT 3 (40AC)  
 ACORN CREEK  
 1" = 40'  
 J. DIVINE 3/29/96



REV 5/30/96



357

**OWNER:** WHITHAM FARMS LLC **SUBDIVISION:** ACORN CREEK RANCH ESTATES  
**TRACT #3** **LOT SIZE:** 40 AC **DATE:** 3/29/96

Prepared By: Jerry Divine, P. E., Box 211, Frisco, CO 80443, (970) 668-3646

**GENERAL**

**NUMBER OF BEDROOMS:** 5  
EXISTING TERRAIN SLOPE IN MOUND AREA 5% +/- BUT SLEEPER DOWNSLOPE TO THE NORTH  
MINIMUM DIMENSIONS--SEE SITE PLAN  
WATER SUPPLY--EXISTING ONSITE WELL, SEE SITE PLAN  
NEARBY WATER COURSE--NONE  
VEGETATION--MEADOW WITH SOME SAGEBRUSH

**CONSTRUCT SEPTIC SYSTEM (MOUND) DURING SUMMER/FALL SEASON FOR DRY CONDITIONS**



**SEPTIC TANK SIZING**

**MINIMUM CAPACITY (GAL):** 1750  
RECOMMEND 2000 GAL PRECAST CONCRETE TWO COMPARTMENT SEPTIC TANK AND SEPARATE 1000 GAL PRECAST CONCRETE TANK FOR DOSING PUMP

TANKS FROM FRONT RANGE PRECAST CONCRETE OR EQUAL.

**FLOW ESTIMATE**

75 GAL/PERSON \* 2 PEOPLE/BEDROOM = 150 GAL/BEDROOM

ESTIMATED AVE FLOW  
# OF BEDROOMS 5 750 GAL/DAY  
DESIGN FLOW (SAFETY FACTOR) AT 1.5 TIMES AVE FLOW  
1125 GAL/DAY

**PROFILE TEST HOLE**

HOLE DEPTH: 6 FT +/- (BOTTOM IN BEDROCK)  
BEDROCK @ 3.0 TO 3.5 FT (FRACTURED), TOTAL DEPTH UNKNOWN  
GROUNDWATER NONE  
IMPERVIOUS STRATA @ CLAY AT 1.0 TO 1.5 FT AND DOWN TO TOP OF BEDROCK

**USE MOUND SYSTEM WITH MIN 2.5 FT SAND ABOVE TOPSOIL  
SEE SITE PLAN, MOUND SECTION (PAGE 10)  
AND SYSTEM PROFILE (PAGE 11)**

**PERC TEST**

**DATE:** 3/27/96 **BY:** J. DIVINE  
**PRESOAK:** 8 HOURS OR MORE JUST PRIOR TO PERC TESTING  
**HOLE LOC:** WITHIN PROPOSED BED (FOR 5 BR MOUND)  
**HOLE DEPTHS:** APPROX 1.1 FT

**RESULTS:** 11.7 MPI SEE PAGE 8

**OWNER: WHITHAM FARMS LLC**      **SUBDIVISION: ACORN CREEK RANCH ESTATES**

**TRACT #3**      **LOT SIZE: 40 AC**      **DATE: 3/29/96**

Prepared By: Jerry Divine, P. E., Box 211, Frisco, CO 80443, (970) 668-3646

**SEEPAGE BED IN MOUND**

<b>5 BEDROOMS</b>	<b>11.7 MPI PERC</b>	<b>0 TO 15 MPI</b>
750 GPD AVE	0.4 GAL/SF/DOSE APPLICATION RATE	
1125 GPD PEAK DESIGN		
281 GAL/6 HR DOSE	<b>703 SF MIN SEEPAGE BED AREA</b>	

<u># PARRALEL</u>	<u>BED</u>	<u>LATERALS</u>	<u>WIDTH</u>	<u>BED LENGTH</u>
4		12		58.6

**4      12      60      USE**

**PRESSURE DISTRIBUTION SYSTEM DESIGN**

**LATERALS WITH CENTRAL FEED MANIFOLD**

SPACING	3	FT C-C
NUMBER	8	
LENGTH	29	FT
DIA	1.5	INCH

**HOLES IN LATERALS**

HOLE SIZE	0.25	DIA, INCH
RESIDUAL PRESS	2	FT HEAD
FLOW/HOLE	1.04	GPM AT RESID
HOLE SPACING	3.35	FT C-C EST
HOLES/LATERAL	9	CALCULATED
HOLES/LATERAL	9	ACTUAL <b>SEE PAGE 9 FOR</b>
HOLE SPACING	3.35	FT C-C ACTUAL <b>DISTRIBUTION PIPING PLAN</b>

**SYSTEM FLOW RATE DURING PRESSURE DISTRIBUTION DOSING**

FLOW/LATERAL	9.4	GPM	
SYSTEM FLOW	74.9	GPM, @ # LAT	
		8	
VOL-GAL OF LATERALS-1.5 IN			21.0
8 LAT OF LENGTH      29			
VOL-GAL OF MANIFOLD-2 1/2 INI			2.3
1 @ 9 FT			
			<u>0.0</u>
TOTAL VOL-GAL			23.3
RATIO: NET DOSE/PIPE VOL			9.9



OWNER: WHITHAM FARMS LLC SUBDIVISION: ACORN CREEK RANCH ESTATES

TRACT #3 LOT SIZE: 40 AC DATE: 3/29/96

Prepared By: Jerry Divine, P. E., Box 211, Frisco, CO 80443, (970) 668-3646

PUMP SELECTION PARAMETERS

**FLOW RATE 74.9 GPM**

**FORCE MAIN--DRAIN BACK TO DOSING TANK**

DIA-INCH	2.5
LENGTH-FT	65 <b>MUST BE VERIFIED BY CONTRACTOR</b>
VOL-GAL	16.4
FTG L FT	35
FRICION LOSS	3.5
FT PER 100 FT AT	
GPM	74.9

**PUMP DISCHARGE HEAD**

LIFT-FT	4.6 <b>MUST BE VERIFIED BY CONTRACTOR</b>
FRICION-FT	2.3
RESIDUAL-FT	2.0
FTG FRICT-FT	1.2
<b>TDH-FT</b>	<b>10.1</b>

**PUMP SELECTION PARAMETERS FOR SEPTIC TANK EFFLUENT**

**74.9 GPM @  
10.1 FT TDH**



**OWNER: WHITHAM FARMS LLC**                      **SUBDIVISION: ACORN CREEK RANCH ESTATES**  
**TRACT #3**    **LOT SIZE: 40 AC**    **DATE: 3/29/96**  
 Prepared By: Jerry Divine, P. E., Box 211, Frisco, CO 80443, (970) 668-3646  
**DOSING TANK DESIGN (FOR PUMP)**

**PROFILE OF DOSING TANK DESIGN**

**FRONT RANGE 1000 GAL ELECTRIC LIFT STATION  
72 INCH ID (17.6 GAL/VERT INCH)**

CHAMBER INLET LEVEL-INCH	51		
RESERVE VOL-GAL		387	34 % PEAK GPD
ALARM ON LEVEL-INCH	29		52 % AVE GPD
ALARM VOL-GAL		53	
PUMP ON LEVEL-INCH	26		
DOSE & FLOW BACK VOL-GAL		246	
PUMP OFF LEVEL-INCH	12		
PERMANENT RESERVOIR VOL-GAL		211	
FLOOR OF TANK-INCH	0		
		TOTAL VOL-GAL	898



OWNER: WHITHAM FARMS LLC SUBDIVISION: ACORN CREEK RANCH ESTATES

TRACT #3

LOT SIZE: 40 AC

DATE:

3/29/96

Prepared By: Jenny Divine, P. E., Box 211, Frisco, CO 80443, (970) 668-3646

PROPOSED SYSTEM DESIGN-CONTINUEDNOTESGENERAL

INSTALLATION BY CONTRACTOR SHALL BE ACCORDING TO THE CURRENT  
SUMMIT COUNTY INDIVIDUAL SEWAGE DISPOSAL SYSTEM (ISDS) REGULATIONS"

**ANY ELEVATIONS SHOWN HEREIN AND PUMP LIFT MUST BE VERIFIED BY CONTRACTOR**

SCARIFY (ROTO-TILL) GROUND UNDER MOUND & REMOVE ALL ORGANIC MATERIAL PRIOR TO BUILDING MOUND.

**ALL PIPING MUST DRAIN COMPLETELY BY GRAVITY AFTER EACH PUMP CYCLE.**

SAND FILL

COMPOSITION OF MOUND SAND FILL MATERIAL: FILTER MATERIAL

STANDARD SIEVE SIZE	% BY WEIGHT PASSING SIEVE
3/4"	100%
NO. 4	60-100%
NO. 50	10-30%
NO. 100	0-10%
NO. 200	0-3%



SAND FILL SHALL BE PROPERLY COMPACTED TO PREVENT DIFFERENTIAL SETTLEMENT IN BED AREA.

ABSORPTION BED--CONVENTIONAL ROCK BED, 12 INCHES DEEPWITH 9 INCHES OF ROCK UNDER LATERAL PIPES

PERFORATED PRESSURE DISTRIBUTION PIPING: FROM CENTRAL FEED MANIFOLD (SEE PIPING SKETCH, PAGE 9)

SIZE: 1 1/2 IN DIA

MATERIAL: PVC-SCHED 40

HOLE SIZE AND SPACING: 1/4 INCH DIA & (3.35 FT) 40.25 INCH C-C  
HOLES AT BOTTOM OF PIPE

FORCE MAIN &amp; CENTRAL FEED MANIFOLD

SIZE: 2 1/2 IN DIA

MATERIAL: PVC-SCHED 40, MINIMUM 100 PSI RATED

INSTALLATION: PER COUNTY ISDS REGS

FORCE MAIN PIPE SHALL BE SLOPED TO DRAIN BACK TO THE DOSING CHAMBER AFTER EACH DOSE---  
TO PREVENT FREEZE UP, BUT LATERALS & MANIFOLD MUST NOT DRAIN BACK TO DOSING CHAMBER.

BREATHABLE" GEOTEXTILE FABRIC FOR CONVENTIONAL ROCK BED

FABRIC SHALL COVER BED (12 FT X 60 FT)

AS A BARRIER TO SOIL BACKFILL MATERIAL ABOVE

**OWNER: WHITHAM FARMS LLC****SUBDIVISION: ACORN CREEK RANCH ESTATES****TRACT #3****LOT SIZE: 40 AC****DATE:****3/29/96**

Prepared By: Jerry Divine, P. E., Box 211, Frisco, CO 80443, (970) 668-3646

**NOTES-CONTINUED****SEPTIC TANK AND LIFT STATION****SEPTIC TANK & DOSE TANK**

INSTALLATION: PER COUNTY ISDS REGS

MANHOLES: THREE MANHOLES AND EXTENTIONS TO GRADE PER COUNTY ISDS REGS

**PUMP**

MODEL: 3885 GOULDS WE0511H (0.5 HP) OR EQUAL 76 GPM +/-  
@10 FT +/- TDH

CONSULT WITH DEALER BEFORE FINAL SELECTION

PUMP SHALL BE INSTALLED TO FACILITATE EASY REMOVAL FOR MAINT.

**CONTROLS AND ALARM**

MODEL: GOULDS DOUBLE PIGGYBACK MERCURY FLOAT SWITCH OR EQUAL  
THE SEPARATE HIGH LEVEL ALARM MERCURY FLOAT SWITCH (SET 3 INCHES ABOVE "PUMP ON"  
LEVEL) SHALL BE WIRED TO AN AUDIBLE ALARM INSIDE THE HOUSE.

THE ALARM SHALL HAVE AN ELECTRICAL CIRCUIT SEPARATE FROM THE PUMP TO POWER IT.

**SEE PAGE 4 FOR WATER LEVEL SETTINGS FOR OFF/ON/ALARM****WIRING**

ALL WIRING SHALL CONFORM TO LOCAL ELECTRICAL CODE

**REVEGETATION**

TO PREVENT EROSION ALL DISTURBED AREAS SHALL RECEIVE 6 IN OF TOPSOIL  
AND BE SEEDED WITH A MIXTURE OF: CONSULT NURSERY

25.0%	ALSIKE CLOVER
25.0%	WHITE CLOVER
25.0%	RYE GRASS
25.0%	BLUE GRASS

REVEGETATION EFFORTS MUST BE AGGRESSIVE TO PROMOTE GROWTH OF GROUND COVER.



OWNER: WHITHAM FARMS LLC SUBDIVISION: ACORN CREEK RANCH ESTATES

TRACT #3

LOT SIZE: 40 AC

DATE:

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DOSING

PER COUNTY REGULATIONS DOSING MUST BE PROVIDED. RECOMMEND USING DOSING DISCHARGE OF OF APPROX 25% OF DAILY FLOW. IE, DOSE FIELD APPROX EVERY 6 HOURS.

DOSING DISCHARGE=.25\*                      750                      (GPD AVE)                      =                      188 GAL/DOSE

OR DOSING DISCHARGE=.25\*                      1125                      (GPD PEAK)                      =                      281 GAL/DOSE

RECOMMEND DOSING DISCHARGE OF 229 GAL PER DOSE

AT ACTUAL PUMP DOSING DISCHARGE OF:                      229 GAL/DOSE

DOSING FREQUENCY = EVERY                      4.9 HOURS

BASED ON PEAK DAILY FLOW

DOSING FREQUENCY = EVERY                      7.3 HOURS

BASED ON AVERAGE DAILY FLOW



OWNER: WHITHAM FARMS LLC

SUBDIVISION: ACORN CREEK RANCH ESTATES

TRACT #3

LOT SIZE: 40 AC

DATE:

3/27/96

Prepared By: Jerry Divine, P. E., Box 211, Frisco, CO 80443, (970) 668-3646

**SOIL PERCOLATION TEST RESULTS**

<u>TEST HOLE #1 (WEST)</u>		<u>WATER</u>		
		<u>DEPTH (IN)</u>		<u>TYPE OF</u>
<u>HOLE DIA (IN)</u>	6	<u>AT START</u>	4.8	<u>SOIL</u>
<u>HOLE DEPTH (FT)</u>		1.1		SANDY LOAM
<u>CLOCK TIME</u>	<u>ELAPSE TIME</u>	<u>READING</u>	<u>FALL (IN)</u>	<u>RATE</u>
400	0	4.80	0.00	N/A
	5	3.80	1.00	5.0
	10	2.92	0.88	5.7
	15	2.10	0.82	6.1

AVERAGE OF LAST THREE READINGS 5.6 MPI

<u>TEST HOLE #2</u>		<u>WATER</u>		
		<u>DEPTH (IN)</u>		<u>TYPE OF</u>
<u>HOLE DIA (IN)</u>	6	<u>AT START</u>	6.52	<u>SOIL</u>
<u>HOLE DEPTH (FT)</u>		1.1		LOAM
<u>CLOCK TIME</u>	<u>ELAPSE TIME</u>	<u>READING</u>	<u>FALL (IN)</u>	<u>RATE</u>
401	0	6.52	0.00	N/A
	10	5.83	0.69	14.5
	20	5.30	0.53	18.9
	25	5.00	0.30	16.7
	30	4.75	0.25	20.0
	35	4.53	0.22	22.7
	40	4.30	0.23	21.7

AVERAGE OF LAST THREE READINGS 21.5 MPI

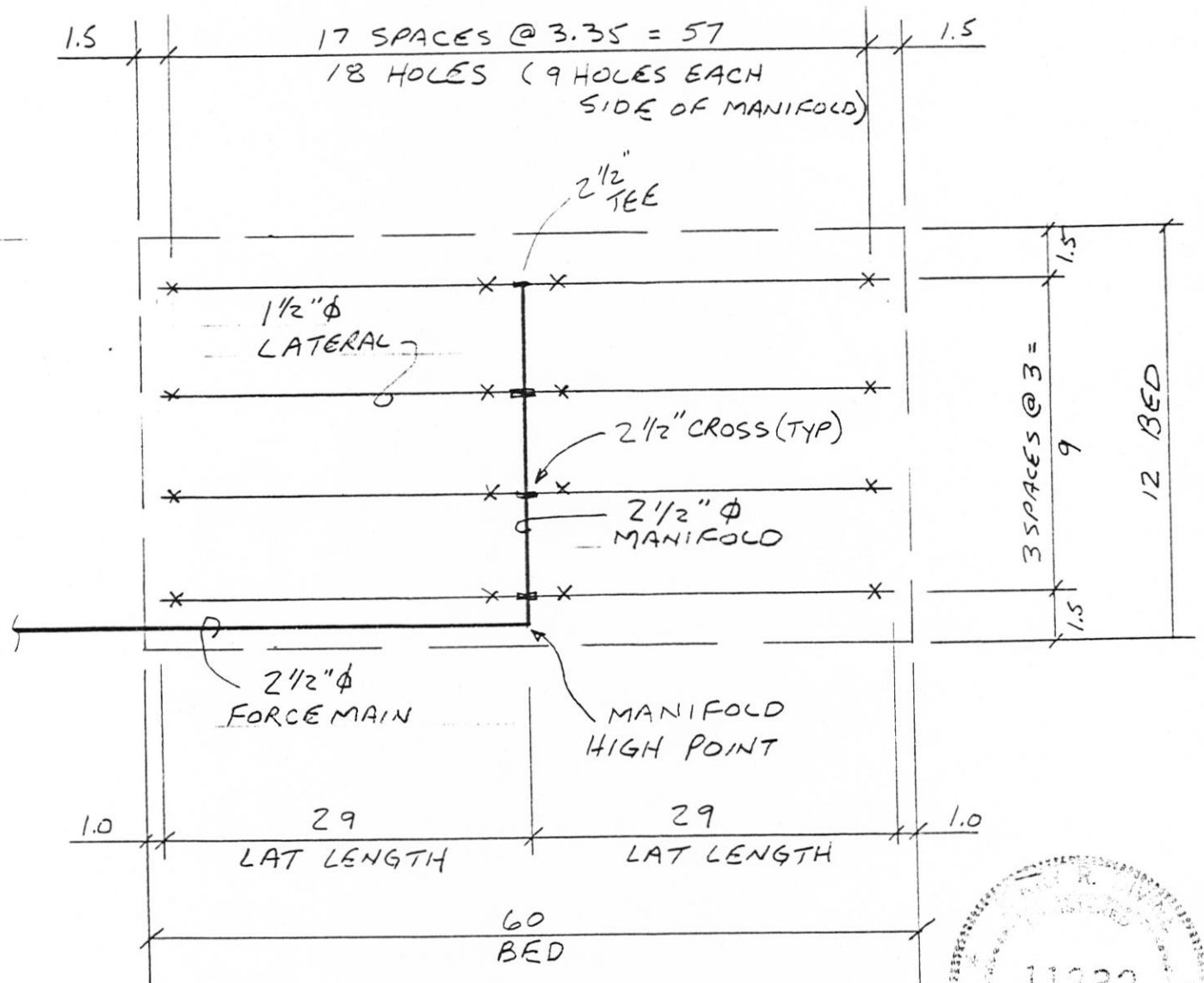
<u>TEST HOLE #3 (EAST)</u>		<u>WATER</u>		
		<u>DEPTH (IN)</u>		<u>TYPE OF</u>
<u>HOLE DIA (IN)</u>	6	<u>AT START</u>	6.03	<u>SOIL</u>
<u>HOLE DEPTH (FT)</u>		1.2		SANDY LOAM
<u>CLOCK TIME</u>	<u>ELAPSE TIME</u>	<u>READING</u>	<u>FALL (IN)</u>	<u>RATE</u>
402	0	6.03	0.00	N/A
	5	5.00	1.03	4.9
	10	4.20	0.80	6.3
	15	3.48	0.72	6.9
	20	2.83	0.65	7.7
	25	2.30	0.53	9.4

AVERAGE OF LAST THREE READINGS 8.0 MPI



SITE SOIL PERC RATE FOR DESIGNING SYSTEM:

(AVERAGE OF THREE HOLES) 11.7 MPI



PIPING PLAN - CENTRAL FEED MANIFOLD

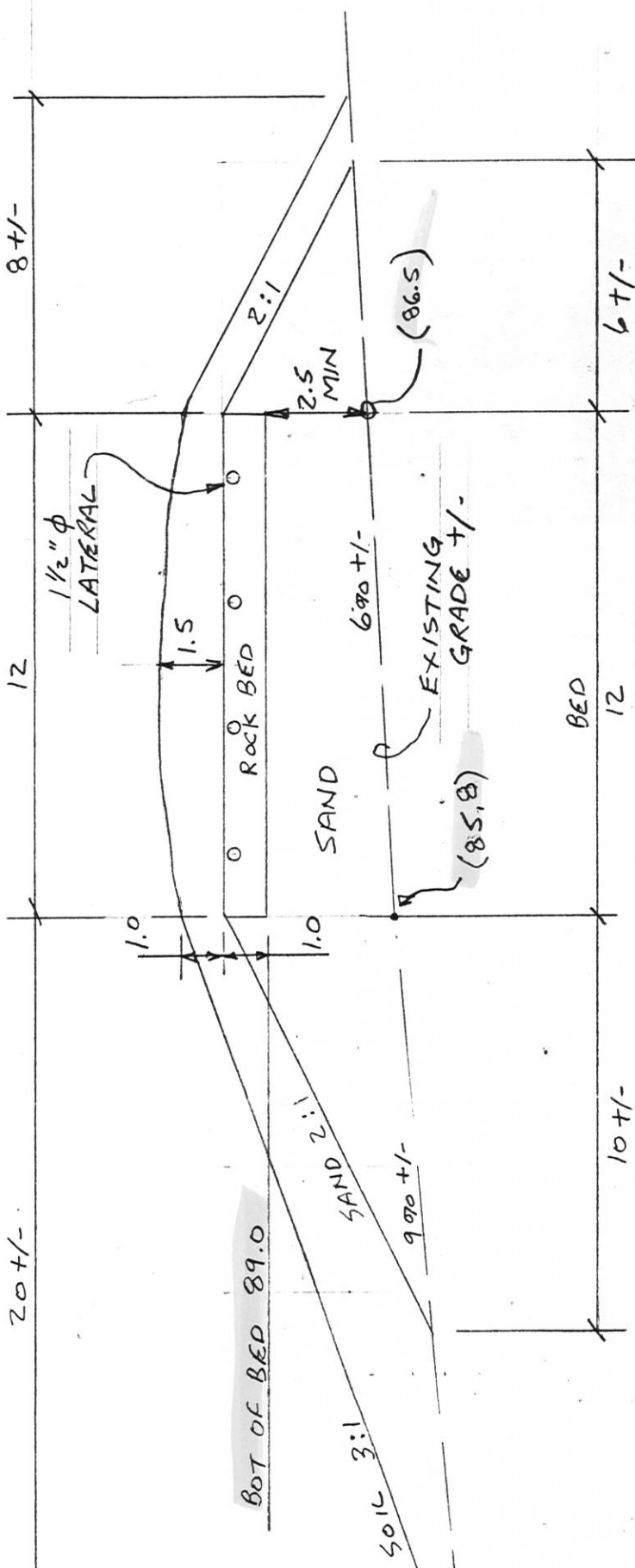
SCALE - NONE

TRACT # 3 ACORN CREEK

- 1/4"  $\phi$  HOLES (BOTTOM OF PIPE), 2 FT RESIDUAL  $\rightarrow$  1.04 GPM/HOLE  
 9 HOLES/LAT  $\times$  3 LAT  $\times$  1.04 = 74.9 GPM

ALL PIPE SCHED 40 PVC

J. DIVINE  
3/29/96



MOUND SECTION

1" = 4'

TRACT 3 ACORN CREEK (SBR)  
11.7 MPI



J. DIVINE  
3/29/96  
REV 5/30/96

PUMP LIFT - 90.0 - 84.4 = 5.6 +/-

SYSTEM PROFILE

TRACT #3

ACORN CREEK

1" = 20' H 1" = 4' V

J. DIVINE 3/29/96

REV 5/30/96

101.0 (ASSUME)

MAIN FLR

HOUSE

EXISTING GRADE (XX.X) +/-

91.0

(ASSUME)

BASEMENT

89.0

29%

87.8

60

SEEPAGE BED (CONVENTIONAL ROCK)

FORCE MAIN HIGH POINT

SOIL

89.0

SAND (MIN 2.5 FT)

2 1/2" φ FORCE MAIN

FILL REQ'D. AS REQ'D.

FILL

PUMPOFF 84.4

200 GAL S.T.

1000 GAL DOSE TANK W/PUMP

TANKS

23 +/-

2 1/2" φ FORCE MAIN

60 +/-

APPROX

BLDG SEWER

58 +/-

APPROX



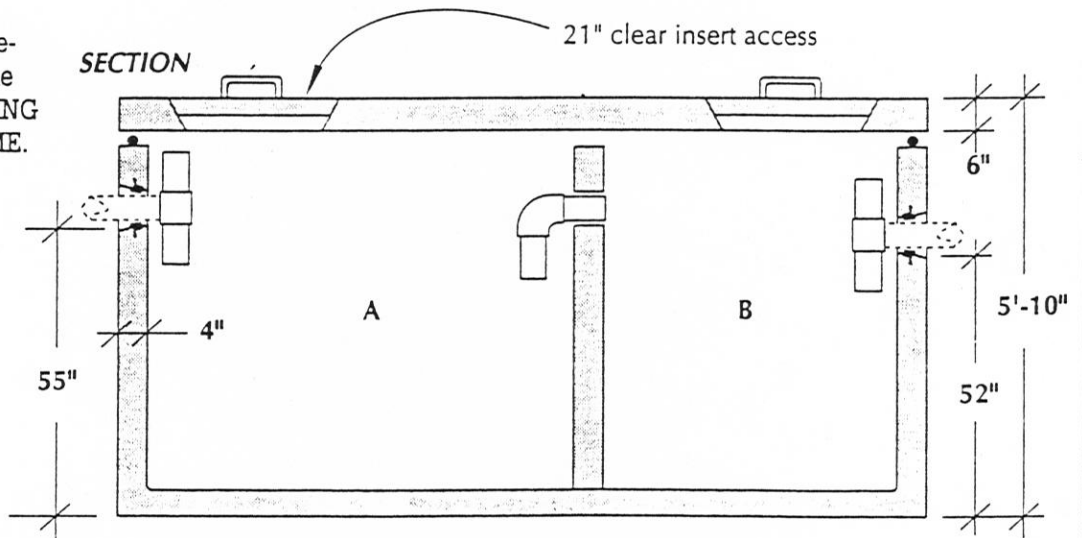
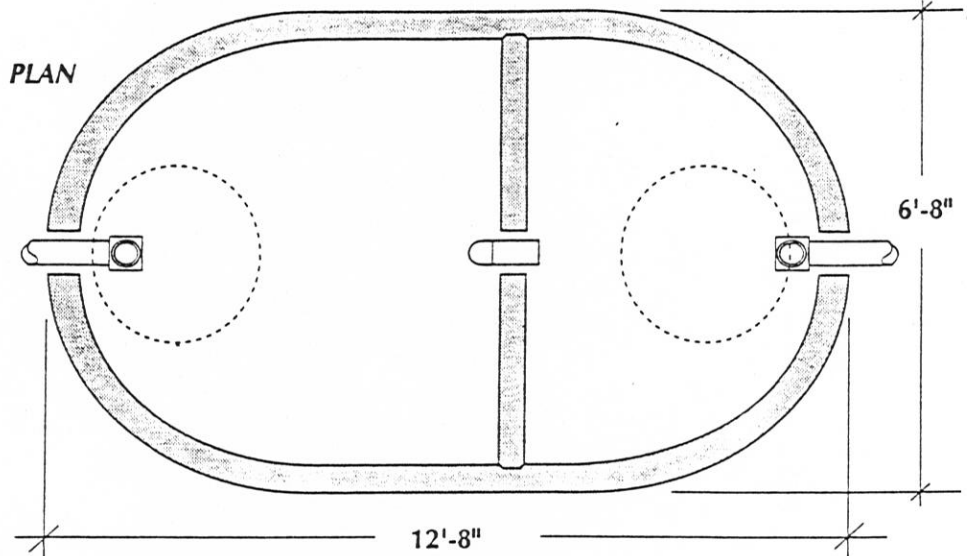
# 2000 Gal. Two Compartment Septic Tank

FLXX

FLXX

Note: N.T.S

- MONOLITHIC TANK meets ASTM-C-913 Spec. for water and waste water structures.
- Butyl rubber sealant meets Fed. Spec. SS-S-210A. (Optional per requirement.)
- Plumbing shown in diagram provided with tank.
- It is the system engineer's requirement to determine VOLUME, LOADING and RETURN TIME.



Dimensions			Capacities (gallons)		Approximate Weights			
W	L	H	A	B	Tank	Lid	Baffle Walls	Total
6'-8"	12'-8"	5'-10"	1050	980	11,725 lbs	5620 lbs	1440 lbs	18,785 lbs



Front Range Precast Concrete  
 5439 N. Foothills Highway  
 Boulder, Colorado 80302  
 (303) 442-3207, (800) 783-3207, FAX (303) 442-3209

TRACT #3  
 ACORN CREEK  
 WHITHAM RES  
 J. DIVINE 3/29/96

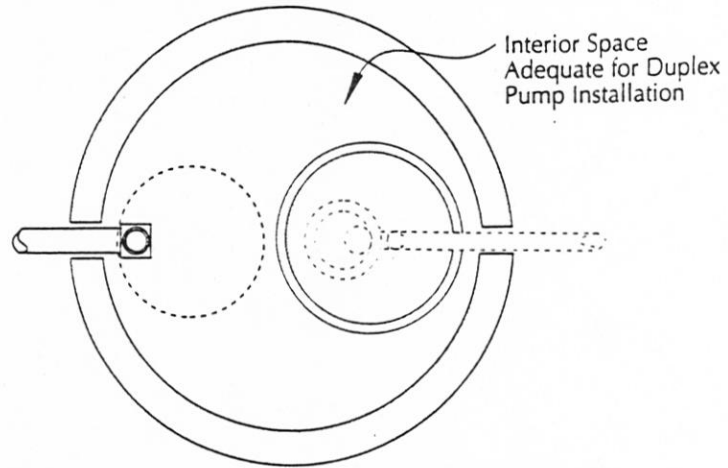
# 1000 Gal. Electric Lift Station

FLXX

FLXX

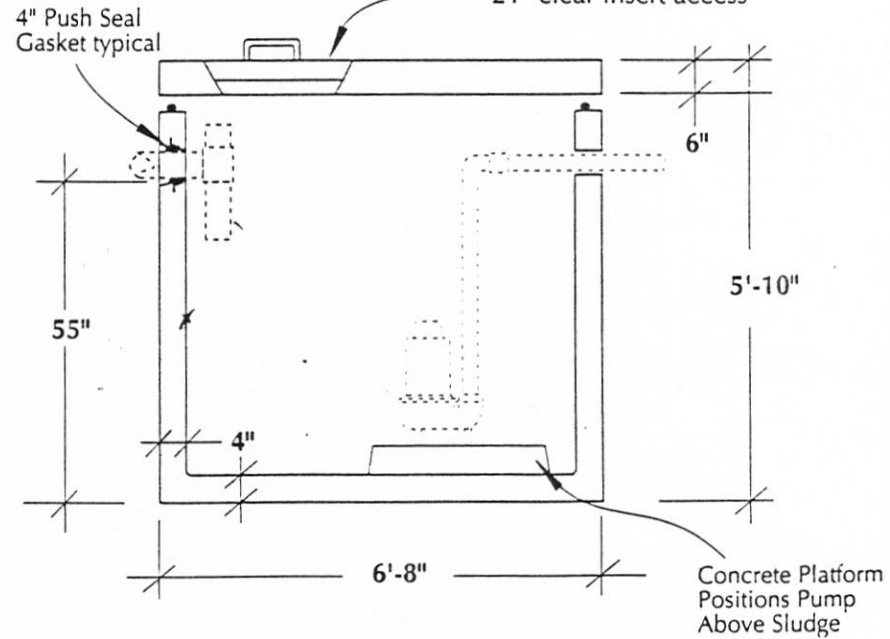
Note: N.T.S

PLAN



- MONOLITHIC TANK meets ASTM-C-913 Spec. for water and waste water structures.
- Butyl rubber sealant meets Fed. Spec. SS-S-210A. (Provided with tank.)
- Effluent pump & plumbing shown in diagram provided by others.
- It is the system engineer's requirement to determine VOLUME, LOADING and RETURN TIME.

SECTION



Gross Volume	Net Volume	Discharge Per Cycle	Weight Tank/Lid
1050 Gal.	890 Gal.	17.62 Variable <del>15.5</del> Gal./Vertical Inch	7,330 lbs



Front Range Precast Concrete  
 5439 N. Foothills Highway  
 Boulder, Colorado 80302  
 (303) 442-3207, (800) 783-3207, FAX (303) 442-3209

TRACT #3	
ACORN CREEK	
WHITHAM RES	
J. DIVINE	3/29/96

**SUMMIT COUNTY**  
**COMMUNITY DEVELOPMENT DIVISION**  
**BUILDING INSPECTION DEPARTMENT**

Permit 96-0155

Date: 03/13/97  
Time: 11:23

FINAL CERTIFICATE OF OCCUPANCY

SFRS : Summit County Single-Fam

Lot: Block: Sub: ACCORN CREEK  
Address: 189 ARROWHEAD BLUFF 2403 SC Filing:  
Location: ACCORN CREEK

Parcel No:  
Legal:

Applicant: SUN SHINE CONSTRUCTION, INC.  
Owner: WHITHAM DAVE  
Address: 3225 MOORE LN  
City: FT. COLLINS CO 80526

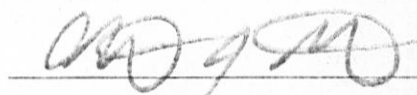
Contractor: SUN SHINE CONSTRUCTION, INC. 303 468-5409  
Address: BOX 724  
City: DILLON CO 80435  
License: 183

Description: NEW SFR W/ GARAGE  
Const. Code: 10 New Construction  
Type Const.: V N Type V Non-Rated  
Occupancy: R3/U1 Residence W/Garage  
Class No: 101 Single Family House, Detached  
Dwelling Units: 001

1. BUILDING OF 1-HOUR FIRE RESISTIVE CONSTRUCTION THROUGHOUT
2. INSTALLATION OF CLASS A ROOF SYSTEM
3. CREATION OF CLASS 1 DEFENSIBLE SPACE
4. MONITORED SMOKE DETECTION AND ALARM SYSTEM
5. SEPTIC SYSTEM APPROVED FOR A FIVE (5) BEDROOM HOME WITH NO HOT TUB.

Item: 00001	Fire	Dept:	Division:
Item: 00002	Sewer/Septic	Dept:	Division:
05/13/1996	ERINR Action: APPR MARSHA MILLER		
02/27/1997	MARSHAM Action: APPR BS-OK FOR C.O.		
Item: 00003	Water	Dept:	Division:
Item: 00010	Engineering	Dept:	Division:
05/13/1996	ERINR Action: APPR DAVE BEARD		
03/13/1997	ERINR Action: APPR R SHELLER		
Item: 00005	Planning	Dept:	Division:
05/13/1996	ERINR Action: APPR LINSAY HIRSH		
03/13/1997	ERINR Action: APPR L HIRSH		
Item: 00011	Road & Bridge	Dept:	Division:
Item: 00006	Home Owners Association	Dept:	Division:
Item: 00012	Building Department	Dept: BLDB@@@	Division: @@
05/20/1996	ERINR Action: APPR ERIN RUSSELL		
06/12/1996	GWENN Action: APPR GWEN NARY		
03/13/1997	ERINR Action: APPR CHET VALANCE		
Item: 00013	Certificate of Occupancy	Dept:	Division:
03/13/1997	ERINR Action: APPR MATT MILLER		
Item: 00017	Fire Hazard Mitigation	Dept: BLDB@@@	Division: @@
05/20/1996	ERINR Action: APPR DON RAYMOND		
02/26/1997	PATTYF Action: APPR JOHN GRIEVE/CO		

Approved for Occupancy, Summit County Department of Codes Administration and Building  
Safety, By:



Title: Building Official Date: 3-12-97