

3. The application must be signed by the owner or holder of an authorized contractor.
 4. At least 24 hours notice must be given to perform an on-site inspection. This permit is valid for a period of two (2) years.
 5. This application is for: New construction Repair existing system Replacement

II. APPLICANT INFORMATION (please print or type)

Name	Mike McNamara	Phone	652-8735
Home Address	5509 Gene Sarazen Drive	City/State/Zip	Billings, MT 59102

III. SITE INFORMATION (Attach a copy of USGS 7.5' or 15' location map.)

Property location Creekside Estates Subdivision, Unit III; Tract 7A
 (subdivision, lot number, COS number, T/R/Section)
 Lot Size 4.4 acres Type of Building house & shop (house, trailer, etc.)
 Number of Bedrooms 4 Full Basement? Yes No
 Have Sanitary Restrictions been lifted? Yes No N/A

IV. SITE EVALUATION (Attach copy of Sanitary Restrictions)

Test pit excavated to a depth of 8 feet
 Depth to bedrock is 8+ feet
 Depth to seasonal high groundwater table is 8+ feet
 Slope 3 % Floodplain? Yes No
 Brief soil description: (boulders, sand, gravel, clay, etc.)

0-14" loam; 14-96" clayey sand & gravel with cobbles

Percolation Rate 18 minutes/inch Test performed by MSS

V. DISPOSAL SYSTEM (See general requirements on back of application)

Septic Tank 1,000 gallons Length of Drainfield 300 feet
 Garbage Disposal Yes No Dishwasher Yes No
 Distance from Septic Tank to:

*Trench
 2-2.5 wide
 85' field
 From House
 145' width
 150' from well*

Foundation	5	feet
Well	100+	feet
Property line	80	feet
Watercourse	100	feet

Distance from Drainfield to:

Foundation	50	feet
Well	160	feet
Property line	10	feet
Watercourse	150	feet

VI. SPECIAL REQUIREMENTS

Pressure dosed system.

VII. SKETCH PROPOSED DISPOSAL SYSTEM ON BACK OF APPLICATION

VIII. ACKNOWLEDGMENT

I hereby declare that the information above is true, complete and correct to the best of my knowledge. The system will be installed in accordance with the Carbon County Regulations for On-site Wastewater Treatment Systems and the terms of the permit.

I acknowledge that Carbon County has not designed my system and that these requirements do not bind or obligate the County to guarantee this system's operation. I further agree to give a minimum 24 hours notice for inspection of the system before it is covered.

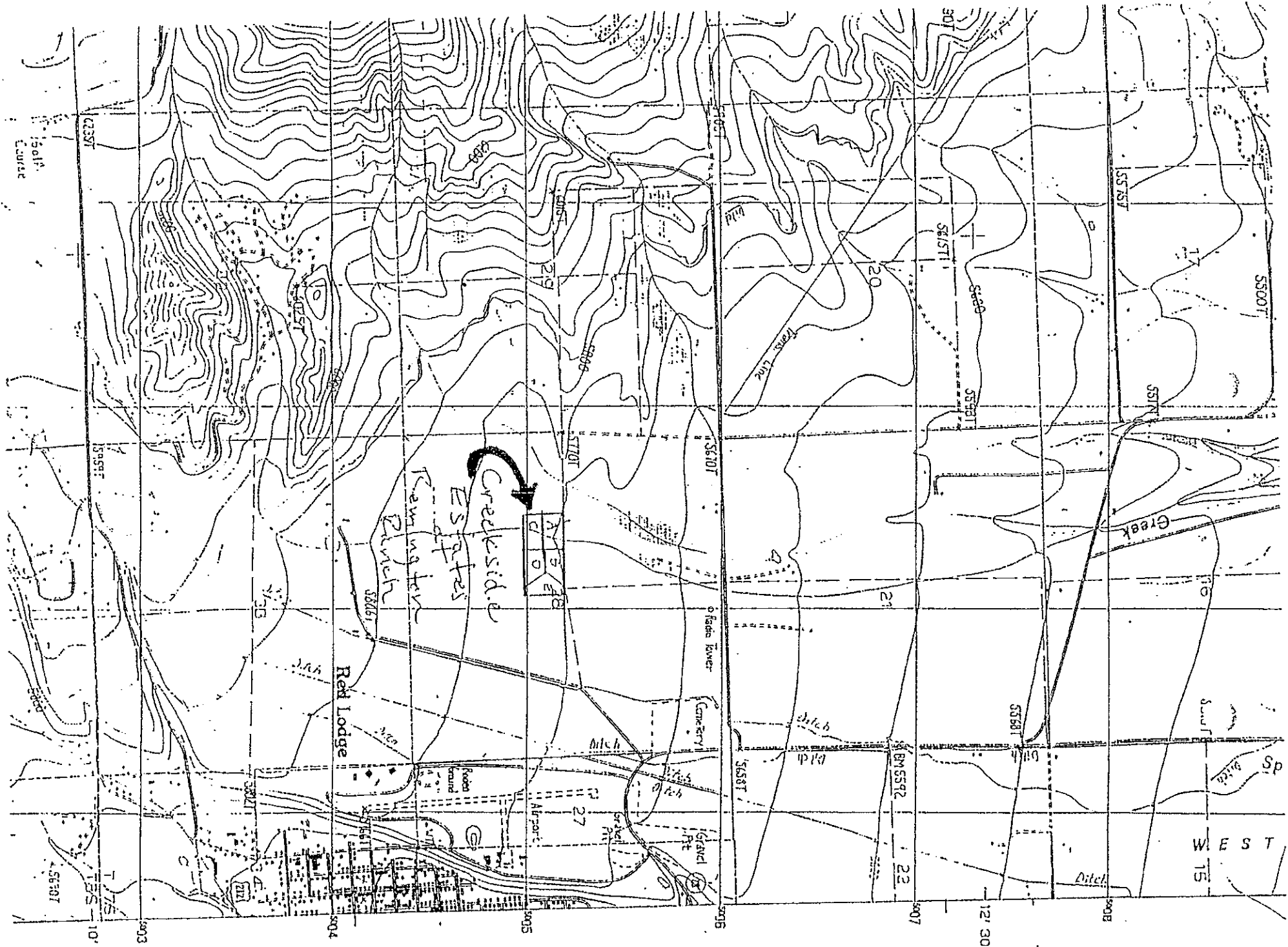
FOR OFFICE USE ONLY

Date Received 8-13-99 12800
 Application Approved 1-28-04
 Date 8-19-99
 Inspected by [Signature]
 Date 9-15-99
 Comments _____

APPLICATION SIGNATURE

DATE 8/13 199
 Installer HUDAK CONSTRUCTION

CARBON COUNTY PLANNING/SANITARIAN'S OFFICE
 P.O. BOX 466
 RED LODGE, MT 59068
 406-446-1694



WEST

15

1901
Golf Course

DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING AND COMPLIANCE DIVISION

MARC RACICOT, GOVERNOR

METCALF BUILDING
1520 E SIXTH AVE



STATE OF MONTANA

(406)444-3080
FAX (406)444-1374

December 10, 1997

PO BOX 200901
HELENA, MONTANA 59620-0901

WILLIS MARSHALL & BOB BERRY
4424 GAINES RANCH LOOP APT #423
AUSTIN TX 78735

RE: CREEKSIDE ESTATES AT REMINGTON RANCH
LOT 7B
CARBON COUNTY
E.Q. #98-1551

Dear Mr. Marshall and Mr. Berry:

The plans and supplemental information relating to the water supply, sewage, solid waste disposal facilities, and storm drainage (if any) for the above-referenced division of land have been reviewed as required by ARM Chapter 17 Section 36 and have been found to be in compliance with those acts.

Two copies of the Certificate of Subdivision Plat Approval are enclosed. The original is to be filed with the Plat at the office of the county clerk and recorder. The duplicate is for your personal records.

Your copy is to inform you of the conditions of the approval. Please note that you have specific responsibilities according to the plat approval statement, primarily with regard to informing any new owner as to inherent limitations which have been imposed.

If you wish to challenge the conditions of this Certificate of Subdivision Plat Approval, you may request a hearing before the Board of Environmental Review or the Department, pursuant to Section 76-4-126, MCA and the Montana Administrative Procedures Act.

If you have any questions, please contact this office.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dennis P. McKenna", written over a horizontal line.

for Dennis P. McKenna
Supervisor
Subdivision Section
Water Protection Bureau

DM/kw

cc: County Sanitarian
County Planning Board

PLAT.I

STATE OF MONTANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
CERTIFICATE OF SUBDIVISION PLAT APPROVAL
(Section 76-4-101 through 76-4-131, MCA 1997)

TO: County Clerk and Recorder
Carbon County
Red Lodge, Montana

E.Q. #98-1551
547L

THIS IS TO CERTIFY THAT the plans and supplemental information relating to the subdivision known as **Creekside Estates Rewrite**

A tract of land located in the Southeast $\frac{1}{4}$ of Section 28, Township 7 South, Range 20 East, P.M.M., Carbon County, Montana

consisting of 5 lots have been reviewed by personnel of the Permitting and Compliance Division, and,

THAT the documents and data required by ARM Chapter 17 Section 36 have been submitted and found to be in compliance therewith, and,

THAT the approval of the Plat is made with the understanding that the following conditions shall be met:

THAT the lot sizes as indicated on the Plat to be filed with the county clerk and recorder will not be further altered without approval, and,

THAT each lot shall be used for one single-family dwelling, and,

THAT each water system will consist of a well drilled to a minimum depth of 25 feet constructed in accordance with the criteria established in Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM and the most current standards of the Department of Environmental Quality, and,

THAT data provided indicates an acceptable water source at a depth of approximately 50 feet, and,

THAT each individual sewage treatment system will consist of a septic tank and subsurface drainfield of such size and description as will comply with Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM, and,

THAT each subsurface drainfield shall have an absorption area of sufficient size to provide 20 square feet per bedroom, and,

THAT the bottom of the drainfield shall be at least four feet above the water table, and,

Page 2 of 2

Creekside Estates at Remington Ranch

Carbon County

E.Q. #98-1551

THAT no sewage treatment system shall be constructed within 100 feet of the maximum highwater level of a 100 year flood of any stream, lake, watercourse, or irrigation ditch, nor within 100 feet of any domestic water supply source, and,

THAT water supply systems, sewage treatment systems and storm drainage systems will be located as shown on the approved plans, and,

THAT all sanitary facilities must be located as shown on the attached lot layout, and,

THAT the developer and/or owner of record shall provide each purchaser of property with a copy of the Plat, approved location of water supply and sewage treatment system as shown on the attached lot layout, and a copy of this document, and,

THAT this Certificate supercedes Certificate EQ # 97-1793 dated July 29, 1997, and all copies should be marked as such or removed from files, and,

THAT instruments of transfer for this property shall contain reference to these conditions, and,

THAT departure from any criteria set forth in the approved plans and specifications and Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM when erecting a structure and appurtenant facilities in said subdivision without Department approval, is grounds for injunction by the Department of Environmental Quality.

YOU ARE REQUESTED to record this certificate by attaching it to the Plat filed in your office as required by law.

DATED this 10th day of December, 1997.

MARK SIMONICH

DIRECTOR

By:

Dennis Mckenna

for DENNIS MCKENNA, SUPERVISOR

SUBDIVISION PROGRAM

PERMITTING AND COMPLIANCE DIVISION

DEPARTMENT OF ENVIRONMENTAL QUALITY

Owner's Name: Willis Marshall and Bob Berry

REVISED LOT LAYOUT OF CREEKSIDE ESTATES AT REMINGTON RANCH

LOCATED IN TRACT 7 OF C.O.S. NO. 1620 RED LODGE WEST L.L.C.
CARBON COUNTY, MONTANA

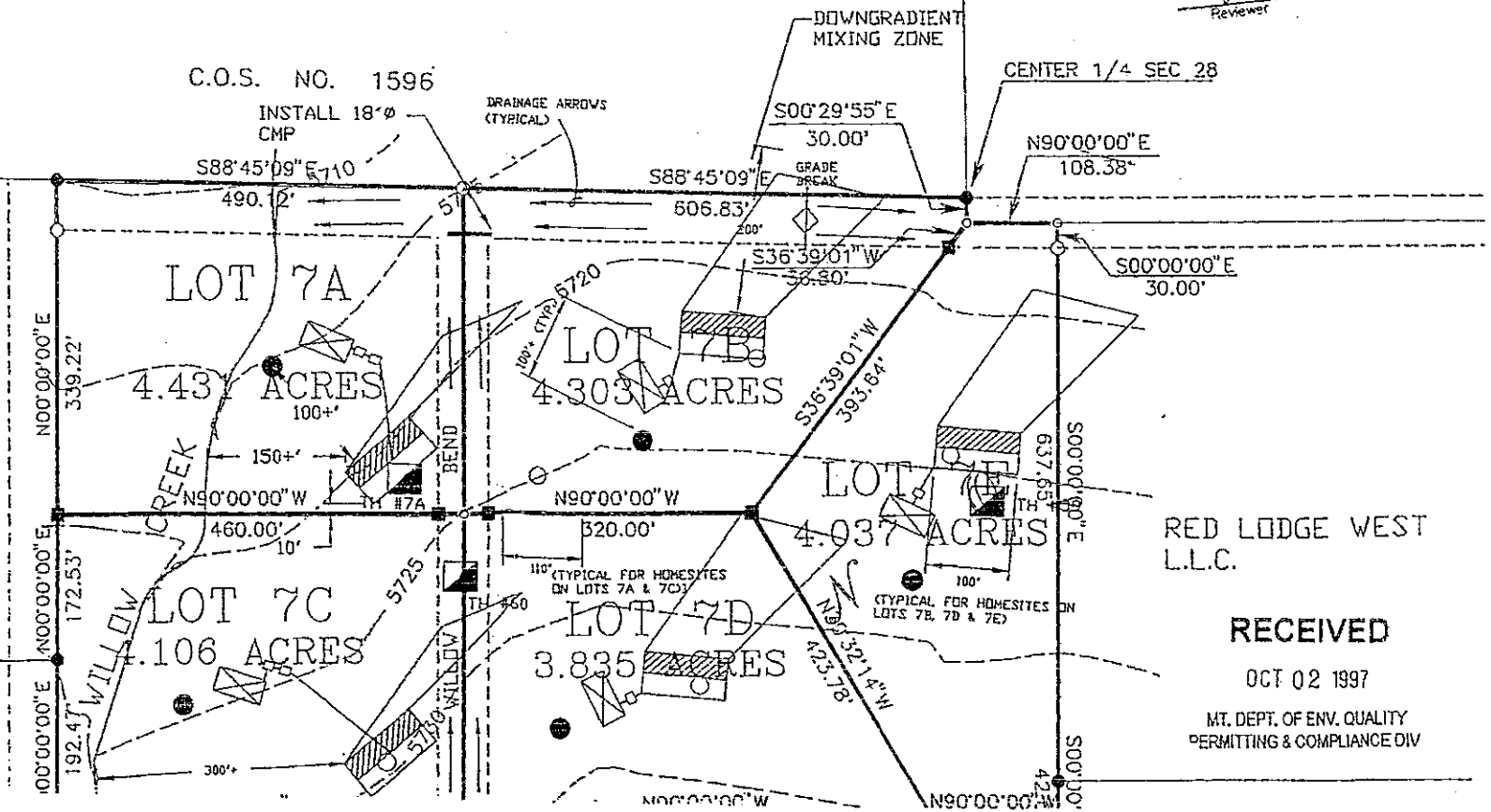
TRACT 4

APPROVED
Montana Department of
Environmental Quality
Permitting and Compliance Division
LMH 10/19/97
Reviewer Date



- LEGEND**
- POSSIBLE DWELLING SITE
 - WELL SITE
 - DR. CLARK DRAINFIELD & REPLACEMENT AREA
 - GROUNDWATER & SOILS TEST HOLE
 - PERCOLATION

1" = 150'



RED LODGE WEST L.L.C.

RECEIVED
OCT 02 1997
MT. DEPT. OF ENV. QUALITY
PERMITTING & COMPLIANCE DIV

REQUIREMENTS FOR PRESSURE DOSED DRAINFIELD SEWAGE TREATMENT SYSTEM

1. Two 1,000 gallon leakproof concrete septic tanks from Billings Precast or an approved equal shall be installed at the head end of the system. One shall be used for the primary settling basin or septic tank, and the second for the pumping or dosing tank. The septic tank shall have concrete baffles with cleanouts to the surface and a 24" access in the center. The dosing tank shall have a 36" diameter access hole with 36" diameter CMP riser running 6" above the ground surface. The riser shall have an overlapping lid and vent pipe.
2. The septic tank and the dosing tank shall be set on at least 6" of imported, compacted 1" minus backfill. Care shall be taken when backfilling around the tanks to ensure that no rock larger than 4" in diameter is resting against the tanks.
3. The lines from the house to the septic tank and the septic tank to the dosing tank shall be 4" diameter solid Sch. 40 PVC. These lines shall be laid with a grade of 1/4" drop in elevation per foot of horizontal distance.
4. A 2" solid Sch. 40 PVC diameter force main shall carry effluent from the dosing tank to the drainfield. The force main shall be adapted to connect to a 2" diameter solid Sch. 40 PVC manifold in the drainfield.
5. A total of 6 laterals, each 1 1/4" in diameter, Sch. 40 PVC pipe, shall branch from the 2 1/2" central manifold. Each pipe lateral shall be 48 feet long laid in an absorption trench that is 50 feet long. Each 1 1/4" diameter lateral shall have a total of ten 3/16" diameter holes drilled into the bottom of the pipe. The first hole shall be drilled 2'-6" from the manifold and each hole thereafter shall be 5' apart.
6. The absorption trench shall be 3 feet wide and at least 10" deep, filled with 1" to 1 1/2" diameter washed rock. After at least 6" of rock has been placed and leveled in the trench, each lateral shall be installed and covered with rock to a point at least 2" above the crown of the pipe.
7. The trenches and laterals must be constructed level and be at the same elevation throughout its length. The end of each 1 1/4" diameter lateral shall have a 90° bend and the 1 1/4" PVC extended vertically to the surface a distance of 2 1/2 feet above the bend. The ends shall be capped, but not glued.
8. After the trenches have been filled with washed rock, a non-woven filter fabric shall be placed over the rock and the trenches shall be backfilled with onsite material.
9. The drainfield shall be dosed 80 gallons per pumping cycle. When the house is occupied, the drainfield shall be dosed approximately three times a day. The dosing pump has been sized to provide a minimum pressure of 1 psi at the distal end of

each lateral.

10. A submersible sewage pump shall pump effluent to the drainfield at a rate of 41 gallons per minute at a total dynamic head of 20 feet. The pump shall be complete with control panel, automatic adjustable level switches and high water level alarm. The control panel with alarm signal shall be installed in the house. Low level pump "off" shall be set just above the top of the pump to keep it submerged to reduce corrosion and allow cooling during operation. Pump "On" level shall be approximately 4" above the Pump "Off" level and the alarm level switch shall be about 2" above it.
11. After installation the distribution system shall be tested for uniform distribution. Water levels in each of the capped risers must indicate no more than a 10% difference in the pressure head across the entire mound.

PRESSURE DOSED DRAINFIELD DESIGN

DISTANCE FROM END TO FIRST HOLE (FT)		2.50			
DISTANCE BETWEEN HOLES (FT)		5.00			
DIAMETER OF LATERAL (IN)		1 1/4"	1.38		
DIAMETER OF ORIFICE (IN)		3/16"	0.19		
HEAD (FT)		2.30			
LATERAL LENGTH (FT)		50.00			
ORIFICE #	LENGTH	HEAD	ORIFICE FLOW	TOTAL FLOW	HEAD LOSS
1	47.50	2.30	0.6778	0.68	0.0005
2	42.50	2.30	0.6779	1.36	0.0018
3	37.50	2.30	0.6781	2.03	0.0039
4	32.50	2.31	0.6787	2.71	0.0066
5	27.50	2.31	0.6797	3.39	0.0099
6	22.50	2.32	0.6811	4.07	0.0139
7	17.50	2.34	0.6832	4.76	0.0186
8	12.50	2.36	0.6859	5.44	0.0238
9	7.50	2.38	0.6893	6.13	0.0297
10	2.50	2.41	0.6936	6.83	0.0362
DIAMETER OF MANIFOLD (IN)		2"	2.0670		
DISTANCE BETWEEN LATERALS (FT)		8.0000			
FLOW THROUGH LATERAL (GPM)		6.83			
HEAD AT END OF LATERAL (FT)		2.41			
LATERAL LENGTH	FLOW	HEAD LOSS	HEAD		
1.00	4.00	41.00	0.1116	2.52	
2.00	8.00	27.32	0.1054	2.63	
3.00	4.00	13.66	0.0146	2.64	
LENGTH OF FORCE MAIN (FT)		140.0000			
SIZE OF FORCE MAIN (IN)		2"	2.0670		
FLOW THROUGH FORCE MAIN (GPM)		41.0000			
HEAD LOSS FORCE MAIN		3.9070			
ELEVATION HEAD (FT)		5.00			
HEAD LOSS THROUGH FORCE MAIN (FT)		4.00			
HEAD REQUIRED AT MANIFOLD (FT)		2.64			
TDH (FT)		11.64			
use a grundfos EF 33					

1" = 25'
 1" = 5'

FLUID LEVEL

7/24/99
 - 26' TO GL
 - 21" TO FLUID
 - 47 DRYUM

WET SPOT

(DID NOT LOCATE)

WET SPOT
 FLUID LEVEL
 ABOVE SURFACE
 - 62.5% DRYUM

DRYUM (WET SPOT HEIGHT)

FLUID LEVEL
 IN HOLE
 7/24/99
 - 104.8 DRYUM

WET SPOT

7/30/99

7/30/99
 WET SPOT
 FLUID LEVEL
 - 24.1 DRYUM

Saturday, July (24), 1999

WELL STATIC 14' BGL

Pure Pipe 21" BGL

STICK
14' / 12' / 8'

BOTTOM OF HOSE
(WHITE LEVEL)

SET UP
WELL D
21" / 36"

WELL
98 3/8" AGL
21" / 62 7/8" DISTANCE

105 7/8
101 1/4
3' / 4' / 5' / 6' DISTANCE

STICK
14' / 12' / 8'

102 7/8
101 1/4
1 5/8

1 3/4 NICKER

96" AGL
57' x 21"
5' / 4' / 3'

21"
21"
10 1/4' / 12' / 12' / 6'

WELL CAP
7 STATION

105 7/8
104 3/4
104 1/2



CARBON COUNTY PLANNING/SANITARIAN'S OFFICE

Greg McGann, Planning Director/SIT
Rod Fink, R.S.
P.O. BOX 466
Red Lodge, MT 59068
406-446-1694

August 19, 1999

Mike McNamara
5509 Gene Sarazen Drive
Billings, MT 59102

Your Development Permit Application submitted on: 8/13/99

_____ Has been approved

1-28-00 ^X _____ Has been conditionally approved. Conditions are listed below.

8-19-99 ^X _____ Has been denied. Explanation given below.

_____ Requires the additional information listed below.

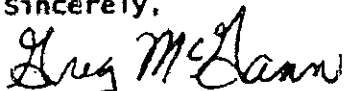
_____ Other > _____

8-19-99 This application was denied due to violation of conditions of Montana Department of Quality, E.Q. #98-1551. Ground water monitoring revealed violation.

1-28-00 Agreements filed that no irrigation will take place, ^{that influences the table, and,} but we need to be left alone for monitoring.
If you have any questions, please contact the Planning Office at 446-1694. ^{monitoring}
1-28-00 Attached agreement in effect.

Thank you,

Sincerely,



Rodney Fink, R.S.
Greg McGann, Planning Director/SIT
Carbon County Planning & Sanitarian's office

GAM-RF/c1a

291953

VERIFICATION AFFIDAVIT

REMINGTON RANCH

Tracts 22 and 23, COS 1620
SW 1/4 Section 28, NW 1/4 Section 33, Township 7 South, Range 20 East, PMM
Carbon County, Montana

Landowner Ruth Helen Langlas, verifies that flood irrigation will no longer take place on Tracts 22 and 23, COS 1620.

Ruth Helen Langlas
Signature

STATE OF MONTANA]
County of] ss.
]]

On this 24 day of November, 1999, before me, a Notary Public for the State of Montana, personally appeared Ruth Helen Langlas, known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

Richard A. Fischer
Notary Public for State of Montana
Residing at Red Lodge
My commission expires 4-21-01

State of Montana } No. This instrument file # 291953 was filed in my
County of Carbon } office this 24th day of Nov 1999
at Red Lodge of the 13
County of Carbon
Notary Public & Recorder
Richard A. Fischer
was in the act

291952

VERIFICATION AFFIDAVIT

WILLOW CREEK CROSSING at REMINGTON RANCH MINOR SUBDIVISION

Tracts 24 & 25 of COS 1620 AM,
N 1/2 of Section 33, S 1/2 of Section 28, Township 7 South, Range 20 East, PMM
Carbon County, Montana

Landowner Alvin Swanson, Jr., verifies that flood irrigation will no longer take place on Lot 24 AM of the Willow Creek Crossing at Remington Ranch Minor Subdivision.

Signature

STATE OF MONTANA

County of _____) ss.

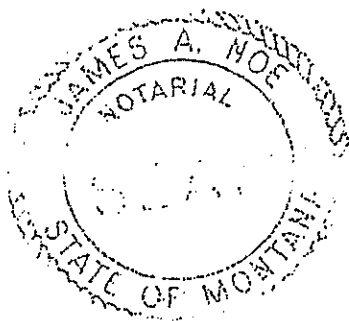
County of _____

On this 23 day of Nov, 1999, before me, a Notary Public for the State of Montana, personally appeared Alvin Swanson, Jr., known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

Notary Public for State of Montana

Residing at _____

My commission expires _____



State of Montana) ss. This instrument file # 291952, was filed in my
County of Carbon) office on 24th day of Nov 1999
at _____ Office _____
By Robert D. Newman
Notary Clerk & Recorder

Notary

291063

VERIFICATION AFFIDAVIT

REMINGTON RANCH

Tracts 30, 31 AM., 32, 33, and 34 AM., COS 1620 AM.,
SW 1/4, Section 33, Township 7 South, Range 20 East, PMM
Carbon County, Montana

Landowner Michael J. Farley, verifies that flood irrigation will no longer take place on any of the tracts listed above.

Michael J. Farley

Signature

STATE OF MONTANA]
] ss.
County of]

On this 10 day of September 1999, before me, a Notary Public for the State of Montana, personally appeared Michael J. Farley, known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.



William R. Palmer
Notary Public for State of Montana
Residing at Fiddlegate
My commission expires 12-17-99

State of Montana]
County of Carbon]
This instrument file # 291063 was filed in my
office this 16 day of Sept 20 1999
at 11:32 o'clock AM.
Hoger D. Newman
County Clerk & Recorder
Fiddlegate
Clerk

CARBON COUNTY PLANNING/SANITARIAN'S OFFICE
Greg McGann, Planning Director/SIT
Rod Fink, R.S.
P.O. BOX 466
Red Lodge, MT 59068
406-446-1694

August 19, 1999

Mike McNamara
5509 Gene Sarazen Drive
Billings, MT 59102

Your Development Permit Application submitted on: 8/13/99

- _____ Has been approved .
1-28-00
_____ Has been conditionally approved. Conditions are listed below.
8-19-99
_____ Has been denied. Explanation given below.
_____ Requires the additional information listed below.
_____ Other >

This application was denied due to violation of conditions of
Montana Department of Quality, E.O. #98-1551.
Ground water monitoring revealed violation.
*Must be installed according to approved plans and specs
*Must be inspected before covering
*Agreement filed that no irrigation will take place that will influence
water table, and test hole needs to be left open for monitoring.

If you have any questions, please contact the Planning Office at 446-1694.

Thank you,

Sincerely,

Rodney Fink

Rodney Fink, R.S.
Greg McGann, Planning Director/SIT
Carbon County Planning & Sanitarian's Office

GAM-RF/cia

*Copy
sent to
Mike 5-10-00
per McNamara
re quest.*

7/22/99

Approx 1/2 WELL/DN

WTRWD I APPROVED

(MAYBE 2/3)

PIPER'S WPT ON JT 150

2000

LOG NOT ON (MAYBE)

(MAYBE)

LOG 11)

1460 WBS. BE WTRWD 249

50' WBS

20 GPM

7/23/99 9:20 AM

FLUID LEVEL

13" BELOW GROUND

PIPE PIPS 15' 21" ^{SWELL} BELOW GROUND

3' 7" 1' 10" 2' 14" 1' 9"

7/22/99

P 1/2 H TO LOC

(WITTHOUT PRESSURE ISH TO BE IN)

32' SFC. CWS WPT

40' WPT/H

30 GPM

DRILLER - "MAY BE" FOR

@ 21'

1 BAR - (LEAKS LIKE 50#)
RE-INSURANCE

(PIPE PIPES)

WITTHOUT PRESSURE ISH TO BE IN
WPT/H
30 GPM