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03/30/2001 12:01P

Yellowstone County HEALTH 0.00

STATE OF MONTANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
CERTIFICATE OF SUBDIVISION PLAT APPROVAL
(Section 76-4-101 through 76-4-131, MCA 1995)

TO: County Clerk and Recorder
Yellowstone County
Billings, Montana

E.Q. #99-1880
00-61j

THIS IS TO CERTIFY THAT the plans and supplemental information relating to the subdivision known as **Valley Canyon Ranch, 3rd Filing:**

A tract of land encompassing all of Tract 6 through 16 of COS No., 2760, located in Section 21, Township 1 North, Range 23 East, PMM, Yellowstone County, Montana

consisting of thirty seven (37) lots in two blocks has been reviewed by personnel of the Permitting and Compliance Division, and,

THAT the documents and data required by ARM Title 17 Chapter 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(1) single-family dwelling, and,

THAT the single-family dwelling on Lots 12, 18, 20 and 21, Block 1 and Lot 15, Block 2, are limited to three(3) bedrooms, and,

THAT if the single-family dwellings on Lot 5 and Lot 12, Block 2, exceed two(2) bedrooms, the drainfields shall be dosed, and,

THAT each individual water system will consist of a cistern constructed in accordance with the criteria established in Title 17, Chapter 36, Sub-Chapter 1, 3, and 6 ARM and the most current standards of the Department of Environmental Quality, and,

THAT the individual sewage treatment systems on Lots 12, 18, 20 and 21, Block 1 and Lot 15, Block 2 shall consist of a 1,000 gallon septic tanks, a 1,000 gallon dosing tank, and a pressure-dosed 7,191 square foot lined evapo-transpiration (ET) system constructed in accordance with Department Circular WQB-5 and Department approved plans and specifications submitted by Bill Maibauer of Aquoneering, dated 8/4/2000, revised 12/13/2000 and received by the Department on 12/14/2000, and,

THAT upon completion of the ET system, the designer shall submit written certification to the Department that the construction was in accordance with the approved plans and specifications, and,

THAT the individual sewage treatment systems for Lot 1 and Lot 16, Block 1, will consist of a minimum 1,000 gallon septic tank, a minimum 500 gallon dosing tank, or a minimum 1,500 gallon combination septic/dosing tank, followed by a pressure-dosed drainfield, of such size and description as will comply with Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM and the most current standards of the Department of Environmental Quality, and,

THAT the pressure-dosed subsurface drainfield for Lot 1, located by easement on Lot 2, shall have an absorption area of sufficient size to provide 220 square feet per bedroom, and,

THAT the pressure-dosed subsurface drainfield for Lot 16, located by easement on Lot 17, shall have an absorption area of sufficient size to provide 300 square feet per bedroom, and,



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THAT all of the remaining individual sewage treatment systems will consist of a 1,000 gallon 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 the subsurface drainfield on Lot 14, Block 1, shall have an absorption area of sufficient size to provide 190 square feet per bedroom, and,

THAT the subsurface drainfields on Lots 4, 9 and 15, Block 1, and Lots 10 and 14, Block 2, shall have an absorption area of sufficient size to provide 220 square feet per bedroom, and,

THAT the subsurface drainfields on Lots 2, 5, 8, 10 and 13, Block 1, and Lots 6, 8 and 9, Block 2, shall have an absorption area of sufficient size to provide 250 square feet per bedroom, and,

THAT the subsurface drainfields on Lots 3, 7 and 11, Block 1, and Lots 1, 2, 3 and 7, Block 2, shall have an absorption area of sufficient size to provide 280 square feet per bedroom, and,

THAT the subsurface drainfields on Lots 6, 17 and 19, Block 1, and Lots 4, 11, 13 and 16, Block 2, shall have an absorption area of sufficient size to provide 300 square feet per bedroom, and,

THAT the subsurface drainfields on Lots 5 and 12, Block 2, shall have an absorption area of sufficient size to provide 340 square feet per bedroom, and,

THAT water supply, 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 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.

THAT the plans and specifications for any proposed sewage treatment systems will be reviewed and approved by the county health department and will comply with local regulations and ARM, Title 17, Chapter 36, Subchapters 3 and 9, before construction is started, and,

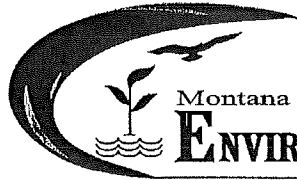
YOU ARE REQUESTED to record this certificate by attaching it to the Plat filed in your office as required by law.

DATED this 2nd day of February, 2001.

Jan P. Sensibaugh
Director

By: *[Signature]*
Theresa Blazicevich, Supervisor
Subdivision Section
Permitting and Compliance Division
Department of Environmental Quality

Owner's Name: George Frank



Montana Department of
ENVIRONMENTAL QUALITY



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MEMO

To: Mark Peterson
From: Rebecca Weaver *RW*
Date: June 1, 2000
Subject: Nondegradation comments for Valley Canyon Ranch, 3rd Filing (EQ#99-1880)

In response to the above submittal, the Department has completed its determination of significance for this project. This determination is made pursuant to the Administrative Rules of Montana (ARM) 17.30.701-717 and 17.30.501-518.

The Department concludes that this project as proposed will not cause degradation of state waters. Please refer to the attached checklist and below for specific information regarding this determination

This approval is based on the locations, dimensions and orientations of the 37 single family drainfields as submitted April 18, 2000. This approval is based on a conventional sewage treatment system for these lots. Note that this nondegradation approval is still valid if there are changes in the location of drainfields from the April 18, 2000 lot layout due to the nitrate standards being met through ARM 17.30.1006 (3)(a) and (5).



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0.00

SUBDIVISION SIGNIFICANCE DETERMINATION CHECKLIST
MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ)Subdivision Name Valley Canyon Ranch, 3rd FilingEQ Number 99-1880Date Reviewed June 1, 2000Reviewer Rebecca Weaver *RW*

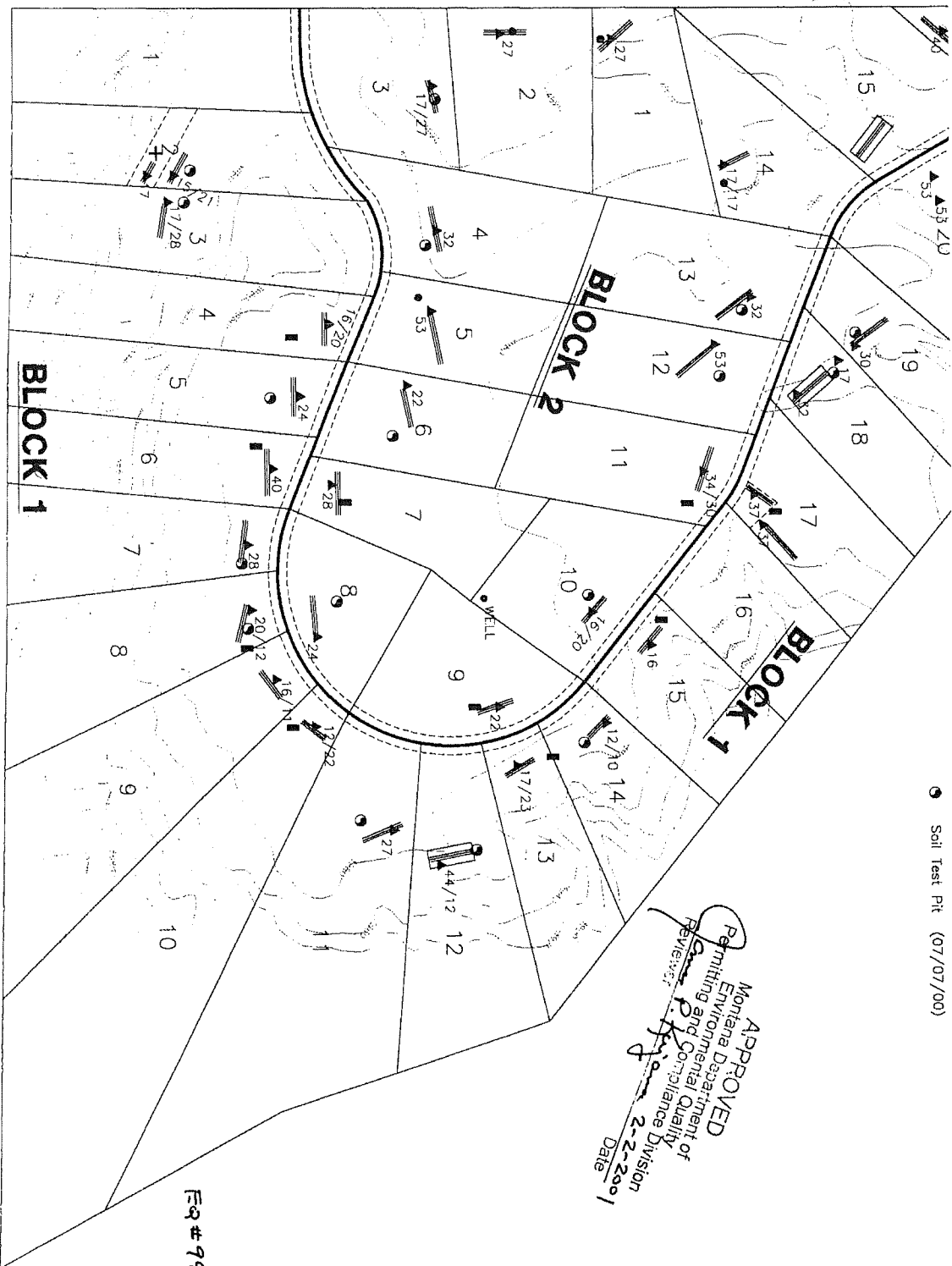
2nd Reviewer _____

Determination: Significant XX Non-Significant Incomplete

rev. 01/2000

Part I: Applicability/Exclusions	YES/NO	Notes / Basis for decision.
ARM 17.30.701(1) & 75-5-103(9), MCA 1. Are any high quality waters affected? (Include downstream and downgradient) If NO, the nondegradation requirements are not applicable.	YES	
ARM 17.30.702(16) & 17.30.705(1) 2. New or increased source of pollutants? If NO, the nondegradation requirements are not applicable.	YES	
3. Activity categorically excluded under ARM 17.30.716 or 75-5-317, MCA? If YES, the Activity is Non-Significant.	NO	
4. Non-Significant under ARM 17.30.715(3)? (Public Notice Required) If YES, the Activity is Non-Significant.	NO	
ARM 17.30 sub-chapter 5 5. Is this determination contingent upon granting a mixing zone? If YES, determine if a mixing zone can be granted before going on to Part II. If NO, continue on to Part II.	NO	Mixing zones are not required because the nitrate plus nitrite nitrogen standards do not apply, as long as all existing and anticipated uses of the groundwaters are protected (ARM 17.30.1006 (5)).
Part II: Significance Determination	YES/NO	Notes / Basis for decision.
ARM 17.30.715(1)(a) 6. Change in mean monthly flow of the surface water > 15%, or change in 7Q10 flow > 10%.	NO	
ARM 17.30.715(1)(b) 7. Concentration of carcinogen or parameter with BCF > 300 in discharge greater than receiving water.	NO	
ARM 17.30.715(1)(c) 8. Increase in toxics or nutrients > trigger value and concentration after mixing > 15% of lowest applicable standard. For nutrients, if the answer is YES, the criteria in question #10 must also be exceeded for the activity to be significant.	NO	
ARM 17.30.715(1)(f) 9. Increase of a harmful parameter > 10% of applicable standard and existing water quality > 40% of applicable standard.	NO	
ARM 17.30.715(1)(g) 10. Measurable effect on a beneficial use or measurable changes in aquatic life or ecological integrity from a narrative parameter.	NO	
11. Increase in nitrate-nitrogen in groundwater at a mixing zone boundary exceeds that allowed in ARM 17.30.715(1)(d).	NO	The nitrate plus nitrite nitrogen standards do not apply, as long as all existing and anticipated uses of the groundwaters are protected (ARM 17.30.1006 (5)). The S.C. is 4030µmhos/cm and K= 0.04 ft/day from onsite well.
ARM 17.30.715(1)(e) 12. Increases in phosphorus in groundwater where adsorptive capacity of soils will be exceeded within 50 years and will reach surface water, or the activity does not employ department approved water quality protection practices.	NO	Nearest downgradient state water is Canyon Creek, 17000 feet from nearest drainfield. Breakthrough for drainfield is nonsignificant.
13. Significant under ARM 17.30.715(2)?	NO	

If any answers to Questions #6 through #13 is YES, the Activity is Significant (except for question #8 as applied to nutrients).



● Soil Test Pit (07/07/00)

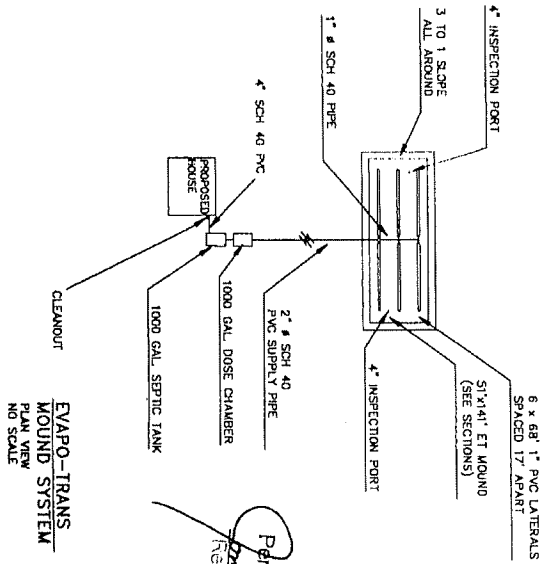
APPROVED
Montana Department of
Permitting and Environmental Quality
Review: *[Signature]*
Date: 2-2-2001

Fig # 99-1850

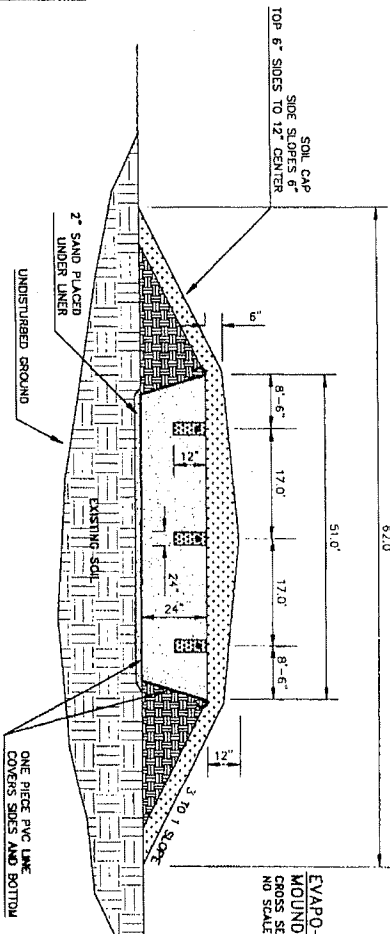
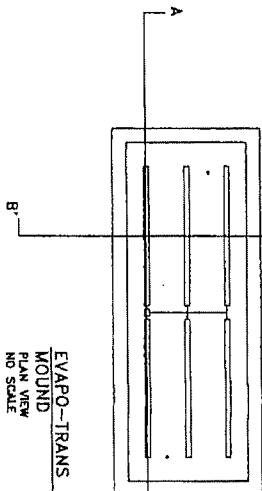
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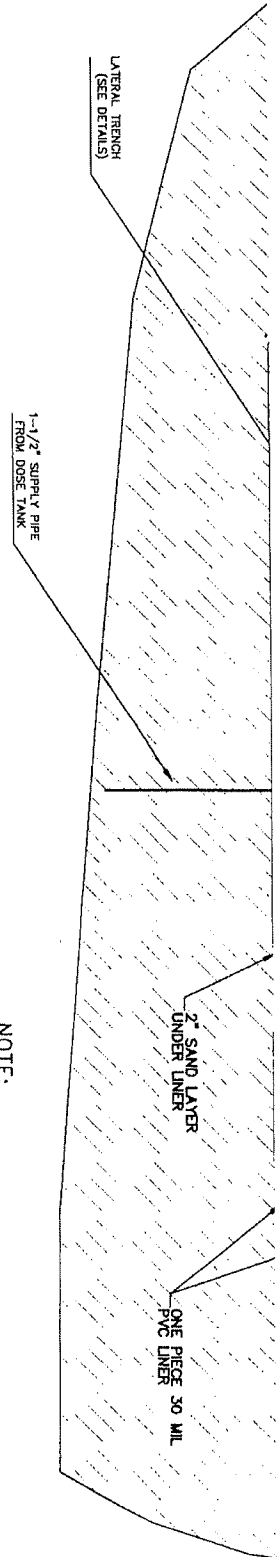
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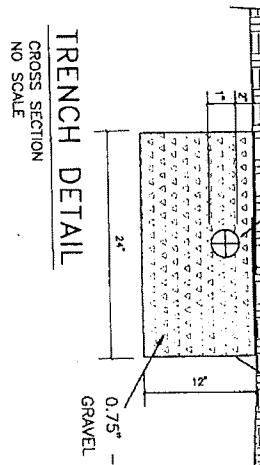
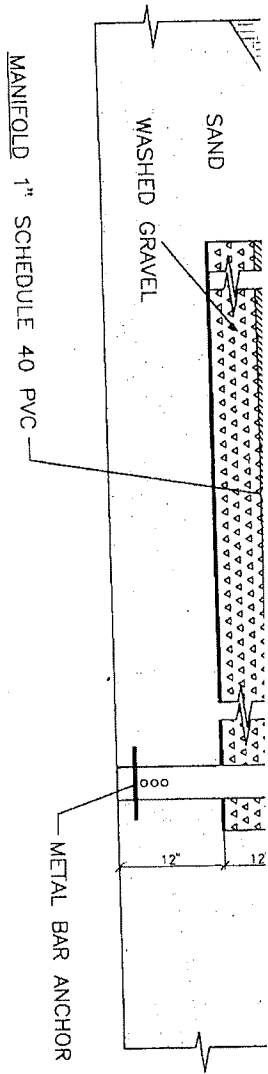


APPROVED
Montana Department of
Environmental Quality
Permitting and Compliance Division
James R. Krum
Reviewer
Date 2-2-2001



NOTE:
ET MOUND SHOWN INSTALLED ON TOP OF GROUND SURFACE.
MOUND SHALL BE INSTALLED WITH BOTTOM 6" BELOW GROUND





LATERAL DETAILS

ELEVATION
NO SCALE

APPROVED
Montana Department of
Environmental Quality
Permitting and Compliance Division
Anna P. Hirsch
Reviewer
2-2-2001
Date

CONSTRUCTION NC

DESIGN NOTES:

EFFLUENT CHARACTERISTICS

350 GAL PER DAY
STANDARD RESIDENTIAL WASTEWATER

DRAINFIELD DESIGN

LATERAL TRENCH TO BE 68" X 24"
6 LATERALS X 68" = 408 L.F.
408 L.F. X 2" = 816 SQ.FT. TRENCH

LATERAL PIPE DESIGN

LATERAL PIPE TO BE 1"
SCHEDULE 40 PVC PIPE

ET MOUND AREA

51' X 140' = 7191 SQ. FT.

ET MOUND STORAGE VOLUME

7191 SQ.FT. X 2' X 0.4' = 5752.8 CU.FT.

DESIGN BEDROCK

VARIES BY LOT

LOT BEDROCK PARAMETERS

THE ET MOUND MUST BE INSTALLED SUCH THAT THERE IS 24" OF CLEARANCE BETWEEN THE BOTTOM OF THE LINER AND THE BEDROCK. INSTALLATION WILL REQUIRE THAT THE LINER BE INSTALLED ON A 2" LAYER OF SAND AND THE EXISTING SOILS BE EXCAVATED TO ACCORDING TO THE TABLE BELOW.

BLOCK	LOT	DEPTH OF LINER BELOW GROUND SURFACE
1	12	3"
1	18	24"
1	20	12"
1	21	12"
2	15	12"

SAND SPECIFICATIONS

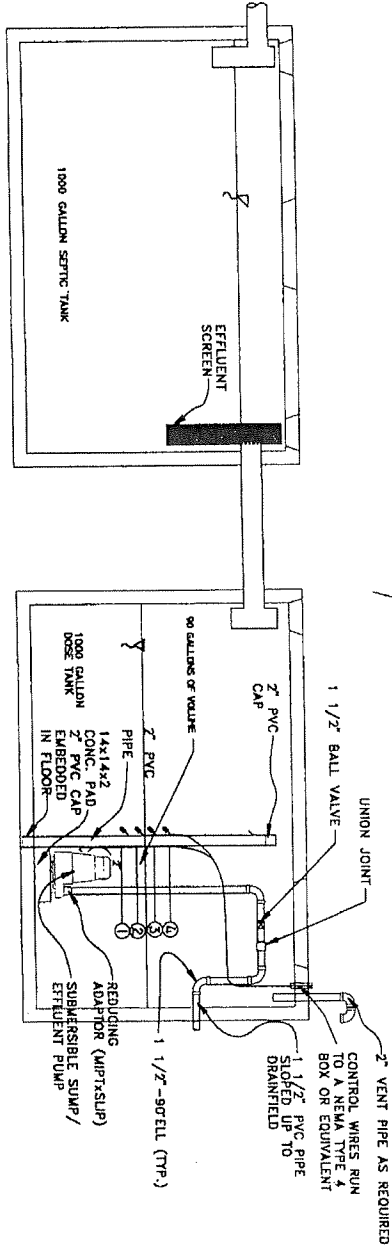
0.05 mm < 50% < 0.1 mm
0.25 mm < 25% < 0.6 mm
0.1 mm < 25% < 0.2 mm

SAND MATERIAL GRADATION ANALYSIS MUST BE SUBMITTED TO ENGINEER FOR APPROVAL

SEPTIC AND DOSING TANKS TO BE TESTED
INTEGRITY (LEAKS) OVER A MINIMUM 24HR
GRAVITY SEWER PIPE SHALL BE INSTALLED
SLOPE OF 1/4" PER FOOT AND WITH A C
CHANGE IN ALIGNMENT OCCURS. ONLY A
WILL BE ALLOWED BETWEEN THE HOUSE A
TANK(SEE DETAIL).
LINER MUST BE PLACE ON 2" OF SAND.
BY 2" AND PLACE SAND THEN LINER.

PLAN VIEW - SEPTIC TANK & DOSING TANK

APPROVED
 Montana Department of
 Environmental Quality
 Permitting and Compliance Division
 Date 2-2-2001



NOTE: SET PUMP TO STOP WITH 4\"/>

- ④ HIGH LEVEL ALARM
- ③ PUMP "ON"
- ② PUMP "OFF"
- ① REDUNDANT "OFF" 2\"/>

SEPTIC TANK W/DOSING

NO SCALE

INSPECT

