Office of Planning and Development
Lincoln County, Wyoming

STANDARD SEPTIC PERMIT APPLICATION

PRE-APPLICATION SOIL CUT

NOTE: Call 24 hours in advance to schedule a Soil Cut Inspection with a County Representative (see phone numbers for Afton or Kemmerer Lincoln County Planning Offices Below).

The following must be provided to the Planning Office prior to the onsite Soil Cut appointment:

1. Property Owner Name
2. Property Description: Subdivision Name and Lot Number or Parcel ID, Township, Range, Section
3. Site Plan (including driveway access marked at location site)
4. Show on Site plan where Soil Cut and Small Wastewater Facility are planned

The above information can be delivered to the appropriate office below or emailed to:

planning@lincolncountywy.gov

Before application is complete the following must be attached

- ☐ Enclosed Fee
- ☐ Property Owner's Signature
- ☐ Copy of recorded Deed
- ☐ Complete site plan consisting of the following:
  - ☐ All Existing Buildings with Dimensions
  - ☐ All Proposed Buildings with Dimensions
  - ☐ Water Lines and Well if applicable
  - ☐ Septic Tank and Drainfield
  - ☐ Replacement Drainfield
  - ☐ North and Scale
  - ☐ Property Lines
  - ☐ Electrical Lines
  - ☐ Driveway
  - ☐ Setbacks
  - ☐ Water Features

AFTON PLANNING OFFICE

Mail:
421 Jefferson Street Suite 701
Afton, WY 83110

Physical:
61st East 5th Avenue
Afton, WY 83110

(307) 885-3106

KEMMERER PLANNING OFFICE

925 Sage Avenue Suite 201
Kemmerer, WY 83101
(307)877-9056

For questions please call one of the above offices or visit our website
https://www.lincolncountywy.gov/

STANDARD SEPTIC PERMIT APPLICATION

www.lincolncountywy.gov

Owner Information

Owner Name:		
Mailing Address:		
City:	State:	Zip:
Phone Number:		
Email:		

Contractor / Developer Information

Contractor / Developer Name:		
Mailing Address:		
City:	State:	Zip:
Phone Number:		
Email:		

New Facility: $300.00 Fee (check, cash, card)

Replacement or Modification: $50.00 Fee (Revised 12/20/2024)

ADMINISTRATIVE USE ONLY
Date Received:
Zone:
Permit Number:
PIN:
Book & Page:
Physical Address:

I (PROPERTY OWNER) ACKNOWLEDGE REVIEWING THE LINCOLN COUNTY LAND USE REGULATIONS AND UNDERSTAND THAT THIS PERMIT WILL BE VOID IF I AM IN VIOLATION OF THE REQUIREMENTS OF THE LINCOLN COUNTY LAND USE REGULATIONS.

Signature: _____ **Date:** _____

PROJECT LOCATION: Township/Range/Section **or** Subdivision Name and Lot Number

_____

LEGAL LOT OR PARCEL SIZE: _____ SQUARE FOOTAGE or ACREAGE

THE COMPLIANCE WITH CONSTRUCTION STANDARDS AND OPERATION AND MAINTENANCE OF THE FACILITY TO MEET THE APPLICANT'S DESIGN ARE THE RESPONSIBILITY OF THE APPLICANT, OWNER, OR OPERATOR. THIS PERMIT SHALL BECOME NULL AND VOID TWO YEARS FROM THE ISSUANCE. A RENEWAL MAY BE REQUESTED PRIOR TO THE EXPIRATION DATE OF THE PERMIT. A COPY OF YOUR WARRANTY DEED IS REQUIRED ALONG WITH THIS APPLICATION. REFER TO LINCOLN COUNTY, WYOMING LAND USE REGULATION (LUR) APPENDIX E SMALL WASTEWATER DESIGN STANDARDS.

PRE-APPLICATION SOIL CUT INSPECTION IS REQUIRED BEFORE INSTALL BEGINS (See Cover)

INSPECTION IS REQUIRED BEFORE BACKFILLING ANY COMPLETED SYSTEM

OWNER or AUTHORIZED SIGNATURE	**DATE**
APPLICANT'S SIGNATURE (If Not the Owner)	**DATE**
APPROVAL TO PROCEED BY COUNTY ADMINISTRATOR	**DATE**
APPROVAL OF INSPECTION BY COUNTY ADMINISTRATOR	**DATE**

If you need assistance or information contact the Planning Office in Kemmerer at (307) 877-9056; 925 Sage Avenue Suite 201, Kemmerer, WY 83101 ; Fax # (307) 877-6439
OR Office in Afton at (307) 885-3106; 61st East 5th Avenue, Afton, WY 83110

County Inspection

PRE-APPLICATION SOIL CUT

Soil type, groundwater level and slope must be considered for septic design.

Soil exploration pit must be dug between 8 feet and 10 feet deep.

Leach field shall be no deeper than 5 feet and no closer than 4 feet to groundwater.

Administrative Use Only

Date: _____

Inspected by: _____

Property Owner: _____

Location: _____

Depth of cut: _____

Groundwater depth: _____

Site Slope: _____

Soil type: _____

_____

_____

_____

Other potential site conditions to consider: surface water, wetlands, pipelines, driveway, canals, irrigation ditches, mottling, etc.

_____

_____

_____

_____

Basic Design Requirements for Septic Tanks

1. Tanks must have a minimum of a 1,000-gallon capacity for residences with up to four bedrooms; add 150 gallons of capacity for each additional bedroom.

2. The tank must be watertight, including all joints and connections, and constructed of a durable, non-corrodible material such as concrete, fiberglass, thermoplastic or other approved material. DEQ regulations do not allow steel tanks.

3. The liquid depth shall be between three (3) and six (6) feet deep.

4. A single chamber tank shall have at least a 2:1 length to width ratio or be partitioned to prevent short-circuiting.

5. The first chamber in any two-chambered tank must accommodate at least 50 percent of the capacity.

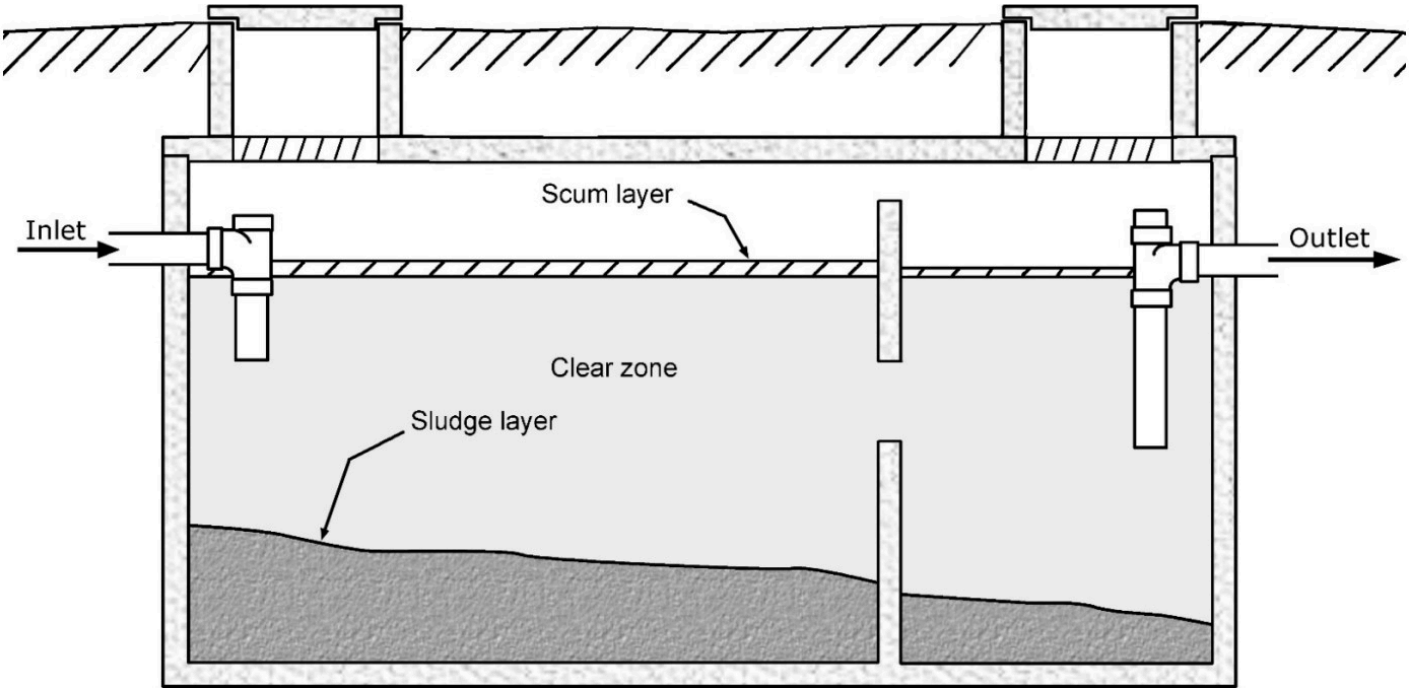
6. Each chamber must have an access opening with a minimum dimension of 20 inches, from which both inlet and outlet tees shall be accessible.

7. Each chamber must have a cleanout riser that extends to a maximum of six (6) inches below the ground surface.

8. The inlet and outlet tees should be 4-inch diameter, schedule 40 PVC or equivalent, and should extend into undisturbed soil.

9. Install tanks used in a series such that the inlet to each successive tank shall be at least two (2) inches below the outlet of the preceding tank.

Diagram of a Typical Two-Chambered Septic Tank



Drawing modified from CIDWT. 2009. *Installation of Wastewater Treatment Systems*. Consortium of Institutes for Decentralized Wastewater Treatment (CIDWT). Iowa State University, Midwest Plan Service. Ames, IA.

GENERAL INFORMATION

1. Property size in acres: _____

2. Water source: On Site Well _____ Community Water _____ Other _____

3. Number of proposed bedrooms: _____

   (Note: where unfinished basement is proposed add 2 bedrooms)

4. Septic tank sizing: Up to 4 Bedrooms = 1,000 gallon tank _____

   Up to 7 Bedrooms = 1,500 gallon tank _____

5. Tank manufacturer: _____

6. Number of tank compartments: _____

7. Tank material: Concrete _____ Poly _____ Other _____

8. Piping shall be a minimum of 4 inches in diameter schedule 40 ABS or PVC

   (Note: SDR 35 may be used if the pipe is bedded in washed pea gravel.)

9. Cleanouts:

   1**. Inlet pipe shall have a cleanout above the surface within 3 feet of the foundation.**

   2. Where elbows are greater than 22.5 degrees in the inlet side of the tank.

   3. Where the inlet pipe exceeds 100 feet in length.

10. Leach Field Sizing:

    Select Design Flow GPD (gallons per day):

    1br = 150 GPD _____

    2br = 280 GPD _____

    3br = 390 GPD _____

    4br = 470 GPD _____

    5br = 550 GPD _____

    6br = 630 GPD _____

    7br = 710 GPD _____

11. Loading Rate (from page 9): _____

12. Design Flow divided by Loading Rate = minimum leach field area

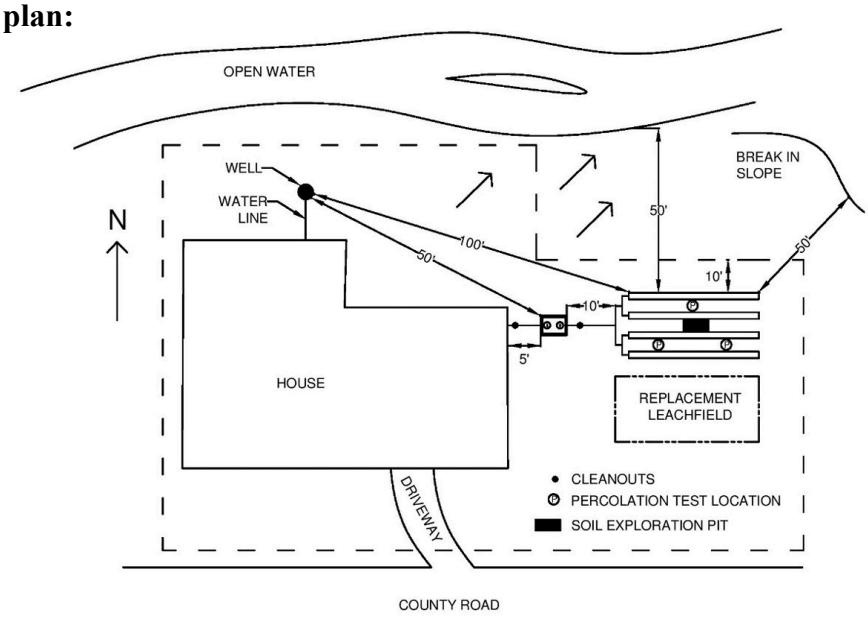
    Design Flow _____ / Loading Rate _____ = Leach field area _____ s.f.

Site Plan Drawing

Attach a sketch of your site as a separate sheet, showing each of the items in the table below if applicable.

Check Box If Shown On Site Plan	Element	Required Setback Distance To Septic Tank (feet)	Required Setback Distance To Leachfield (feet)	Is the Setback Distance Satisfied?
☐	Property lines	10	10	☐ Yes ☐ No
☐	All buildings, roads, and driveways	—	—	—
☐	Setback to buildings w/out a foundation drain	5	10	☐ Yes ☐ No
☐	Setback to buildings with a foundation drain	5	25	☐ Yes ☐ No
☐	Private wells (including neighbors)	50	100	☐ Yes ☐ No
☐	Public water supply wells	100	200	☐ Yes ☐ No
☐	Potable water supply lines	25	25	☐ Yes ☐ No
☐	Surface water (stream, pond, intermittent waterways, etc.)	50	50	☐ Yes ☐ No
☐	Ditches	20	20	☐ Yes ☐ No
☐	Septic tank	—	10	☐ Yes ☐ No
☐	Break in slope (where slope gets abruptly steeper)	15	15	☐ Yes ☐ No
☐	Cisterns	25	25	☐ Yes ☐ No
☐	Leachfield & Replacement Leachfield	10	—	☐ Yes ☐ No
☐	North arrow	—	—	—
☐	Slope (arrow pointing downslope)	—	—	—
☐	Location of numbered percolation test holes (numbered)	—	—	—
☐	Location of soil exploration pit	—	—	—
☐	Location of cleanout port(s)	—	—	—

Example site plan:



Percolation Test Instruction

In order for a septic system to perform properly, the wastewater must move through the soil at an ideal rate, neither too fast nor too slow. A percolation test estimates the rate at which the water will percolate, or move, through the soil. The information provided by percolation tests is necessary to design leachfields correctly. Follow the steps below to complete a percolation test.

1. Location of Percolation Test Holes. The percolation (perc) test holes must be spaced uniformly over the proposed leachfield site. A minimum of three (3) test holes are required, although you can use more if desired.

2. Test Hole Preparation. Dig or bore each hole 12 inches wide and as deep as the proposed depth of the leachfield (usually between 30 and 40 inches). Make sure the sides are vertical and scrape the sides and bottom of the hole with a sharp pointed instrument to restore a natural soil surface. Remove loose soil from the hole and place 2 inches of coarse sand, washed gravel, or crushed stone in the bottom in order to prevent scouring or sealing.

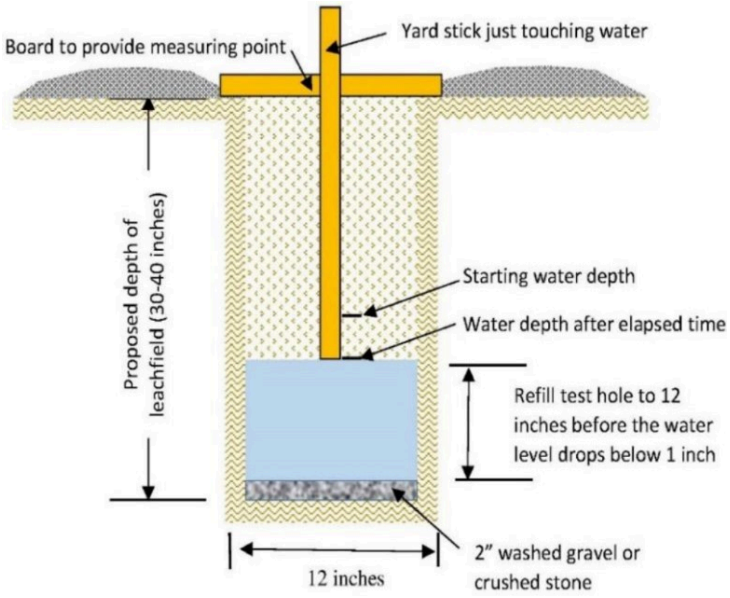
3. Presoaking. Presoaking is absolutely required to get valid percolation test results. Presoaking allows the water conditions in the test hole to reach a stable condition that is similar to a leachfield. Presoaking time varies with soil conditions, but presoak holes for at least 4 hours. Maintain at least 18 inches of water in the test holes for at least 4 hours, then allow the soil to swell for 12 hours (overnight is good) before starting the perc test.

For sandy or loose soils, add 18 inches of water above the gravel or coarse sand. If the 18 inches of water seeps away in 18 minutes or less, add 18 inches of water a second time. If the second filling of 18 inches of water seeps away in 18 minutes or less, the soil is excessively permeable and the site is unsuitable for a conventional disposal system. If this is the case, contact your county small wastewater permitting authority or DEQ district office.

4. Perc Rate Measurements. Fill each hole with 12 inches of water and let the soil re-hydrate for 15 minutes prior to taking any measurements. Establish a fixed reference point such as a flat board placed across the top of the hole to measure the incremental water level drop at the constant time intervals. Measure the water level drop to the nearest 1/8 of an inch with a minimum time interval of 10 minutes. Normal time intervals are usually 10 or 15 minutes.

Refill the test hole to 12 inches above the gravel before starting the measurements. Measure down to the water from the fixed reference point. Record this value on the first line in the perc test data sheet (Page 10). Take another measurement after the time interval has elapsed and record on the second line of the table. Calculate the water level drop and record in the table.

Continue the test until the water level drop rate has stabilized, i.e. three consecutive measurements within 1/8 inch of each other. Before the water level drops below 1 inch above the gravel, refill the test hole to 12 inches. Some test holes may take longer to stabilize than others. If the drop rate continues to fluctuate, use the smallest drop rate out of the last six intervals for your calculations.



Percolation Test Data Sheet

Owner/Project Name: _____ Date: _____

Test holes were pre-soaked for: _____ (hours/minutes) Time Interval:_____ min

Do not perform percolation test if ground is frozen or if groundwater is present in holes. Holes must be 12 inches in diameter and evenly spaced over the leachfield area. Roughen sides and bottoms of holes and place 2 inches of gravel in each hole.

		Hole #1 (Required)		Hole #2 (Required)		Hole #3 (Required)		Hole #4 (Optional)		Hole #5 (Optional)		Hole #6 (Optional)	
Depth of Hole:													
Time of Day	**Time (Min)**	**Measure to nearest 1/8 inch**		**Measure to nearest 1/8 inch**		**Measure to nearest 1/8 inch**		**Measure to nearest 1/8 inch**		**Measure to nearest 1/8 inch**		**Measure to nearest 1/8 inch**	
		Water Level	**Drop**	**Water Level**	**Drop**	**Water Level**	**Drop**	**Water Level**	**Drop**	**Water Level**	**Drop**	**Water Level**	**Drop**
			—		—		—		—		—		—
Time Interval (minutes)													
Final Interval Drop (inches)													
Perc Rate (min/inch)													
								Design Perc Rate (min/inch)					

To calculate drop: Subtract the water level measurement at the start of your time interval from the water level measurement at the end. The "Drop" is how far the water level went down during the stated time interval. Time intervals must be consistent for each hole throughout the test.

Leachfield percolation (Perc)rate: If 3 to 5 holes were tested, use the slowest (highest number) rate of the holes tested. If six or more holes were tested, use the average rate.

Helpful Conversions: 1/8 = 0.125 1/4 = 0.25 3/8 = 0.375 1/2 = 0.50 5/8 = 0.625 3/4 = 0.75 7/8 = 0.875

To calculate perc rate (minutes per inch): Time Interval (min) ÷ Final Interval Drop (in)

$$Example\ Perc\ Rate = \frac{Time\ Interval\ (min)}{Final\ Interval\ Drop\ (in)} = \frac{10\ min}{1\ \frac{1}{8}\ in} = 8.9\ \frac{min}{in}$$

I certify that this perc test was done in accordance with WQRR Chapter 25, Appendix A and the instructions on the previous page.

Test Performed by: _____ **Signature:** _____

Table 1. Chamber System Equivalent Areas

Wyoming DEQ Rules and Regulations Chapter 25 Section 8 allows for a 30% reduction in the leachfield area when using chambers in place of traditional pipe and stone systems. To calculate the reduction in square footage required to achieve the same amount of infiltrative surface as pipe trenches or beds, use the dimensions provided by the chamber manufacturer. In a trench configuration, the equivalent area is equal to Length * [(Chamber Width * 1.43) + (2 * Effective Sidewall Height)]. In a bed configuration the sidewall is not counted, so the equivalent area is equal to Length * (Chamber Width * 1.43). Use dimensions provided in the table below to design leachfields utilizing chamber technology on pages 12 (chamber trenches) or 16 (chamber beds) of the application package.

Chamber Class	Chamber Name	Nominal Dimensions			Effective Dimensions			Equivalent Area	
		Length	Width	Height	Length	Width[1]	Height[2]	Trench Layout	Bed Layout
		(ft)	(in)	(in)	(ft)	(in)	(in)	(sf/unit)	(sf/unit)
Standard	Quick4 Standard	4.4	34	12	4.0	34	8.0	21.5	16.2
	Quick4 Plus Standard	4.4	34	12	4.0	34	8.0	21.5	16.2
	Arc 36	5.3	34	13	5.0	34	7.0	26.1	20.3
	BioDiffuser 11" Standard	6.3	34	11	6.2	34	5.8	31.1	25.1

[1]The equivalent areas calculation used the outside width of the chamber.
[2]The effective height is the height of the slotted sidewall of the chamber or depth below the flow line of the inlet pipe, whichever is less.

Loading Rate (gpd ft2)

Check Perc Rate Obtained from Perc Test Data Sheet (page 8)

Perc. Rate min/inch	Loading Rate gpd/ft^2	Perc. Rate min/inch	Loading Rate gpd/ft^2	Perc. Rate min/inch	Loading Rate gpd/ft^2
○ 5	0.80	○ 16	0.50	○ 30-31	0.39
○ 6	0.75	○ 17	0.49	○ 32-33	0.38
○ 7	0.71	○ 18	0.48	○ 34-35	0.37
○ 8	0.68	○ 19	0.47	○ 36-37	0.36
○ 9	0.65	○ 20	0.46	○ 38-40	0.35
○ 10	0.62	○ 21	0.45	○ 41-43	0.34
○ 11	0.60	○ 22	0.44	○ 44-46	0.33
○ 12	0.58	○ 23-24	0.43	○ 47-50	0.32
○ 13	0.56	○ 25	0.42	○ 51-55	0.31
○ 14	0.54	○ 26-27	0.41	○ 56-60	0.30
○ 15	0.52	○ 28-29	0.40		

Loading Rate (gpd/ft^2): _____

Enter loading rate for your percolation rate from above table.

Enter value on page 5 line 11

Perforated Pipe Trench Layout Worksheet

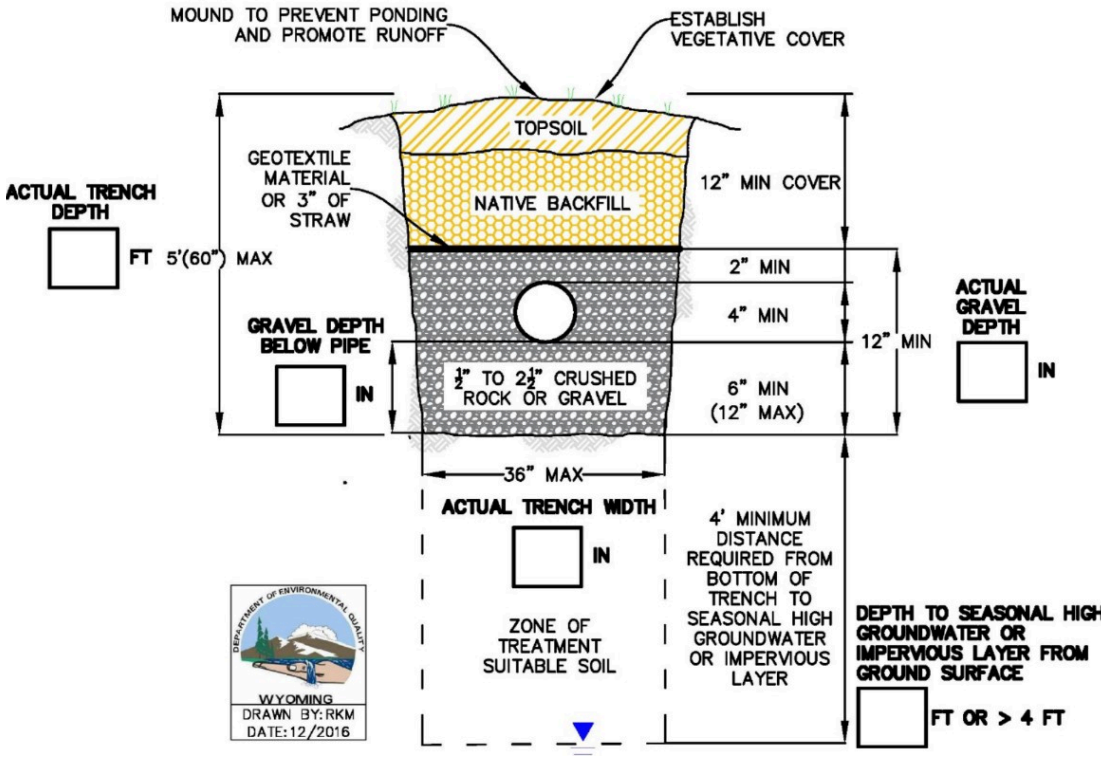
Design

Required Leachfield Area (Line 12, Page 5)		Box 1
Depth of Trench Below Pipe (ft)		Box 2
Width of Trench (ft)		Box 3
Absorptive Area Per Linear Foot of Trench (ft^2/ft)	_____ + _____ + _____ = _____ Trench Depth (Box 2) Trench Depth (Box 2) Trench Width (Box 3) Absorptive Area	Box 4
Total Trench Length (ft)	_____ ÷ _____ = _____ Required Leachfield Area (Box 1) Absorptive Area (Box 4) Total Trench Length	Box 5

Trench Layout

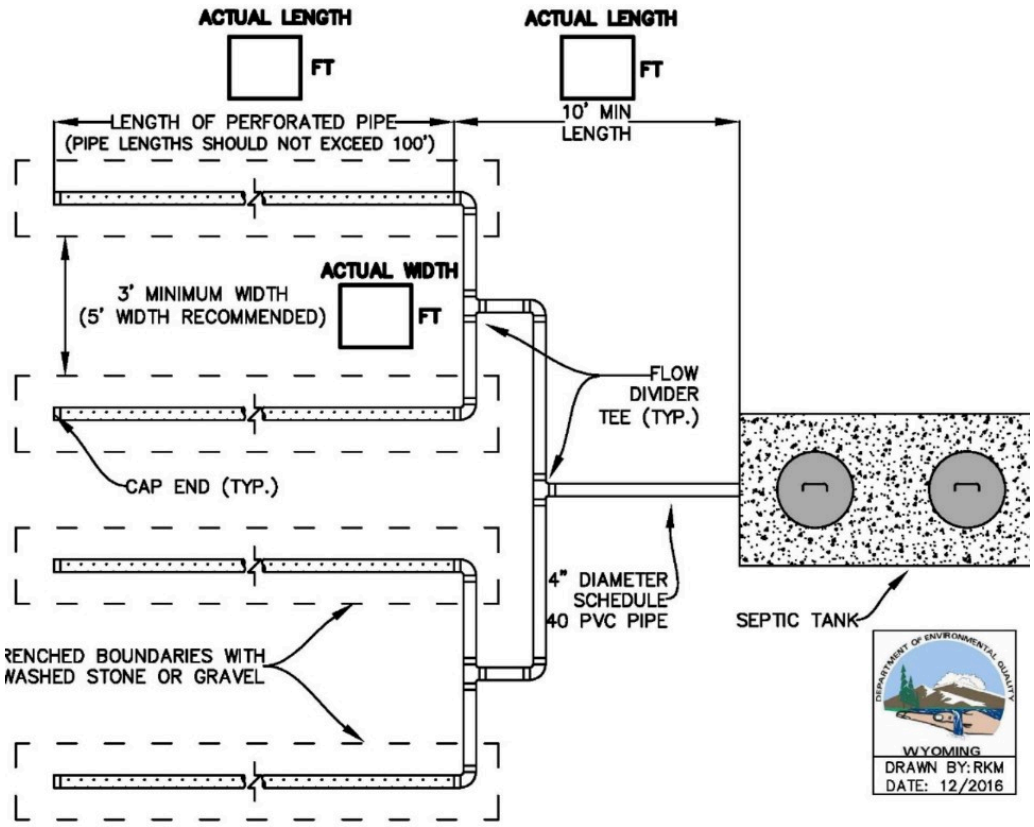
	Total Trench Length (ft) (from Box 5)	Minimum Number of Trenches to Use	
Number of Trenches to Use	<101	1	Box 6 **Number of Trenches to Use = _____**
	101-200	2	
	201-300	3*	**Length of Trenches = _____**
	301-400	4	
	401-500	5*	*A distribution box, or D-box, is required when an odd number of trenches is used.
	501-600	6	

Please fill in the boxes on the diagram below.



Perforated Pipe Trench Layout Diagram

Example Layout Diagram

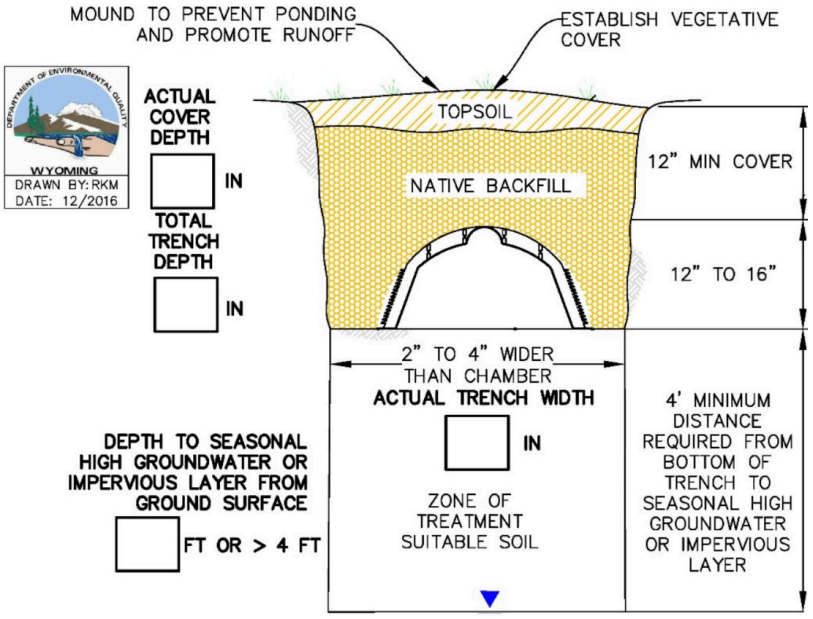


Draw your perforated pipe trench layout below or attach a separate sheet.

Chambered Trench Layout Worksheet

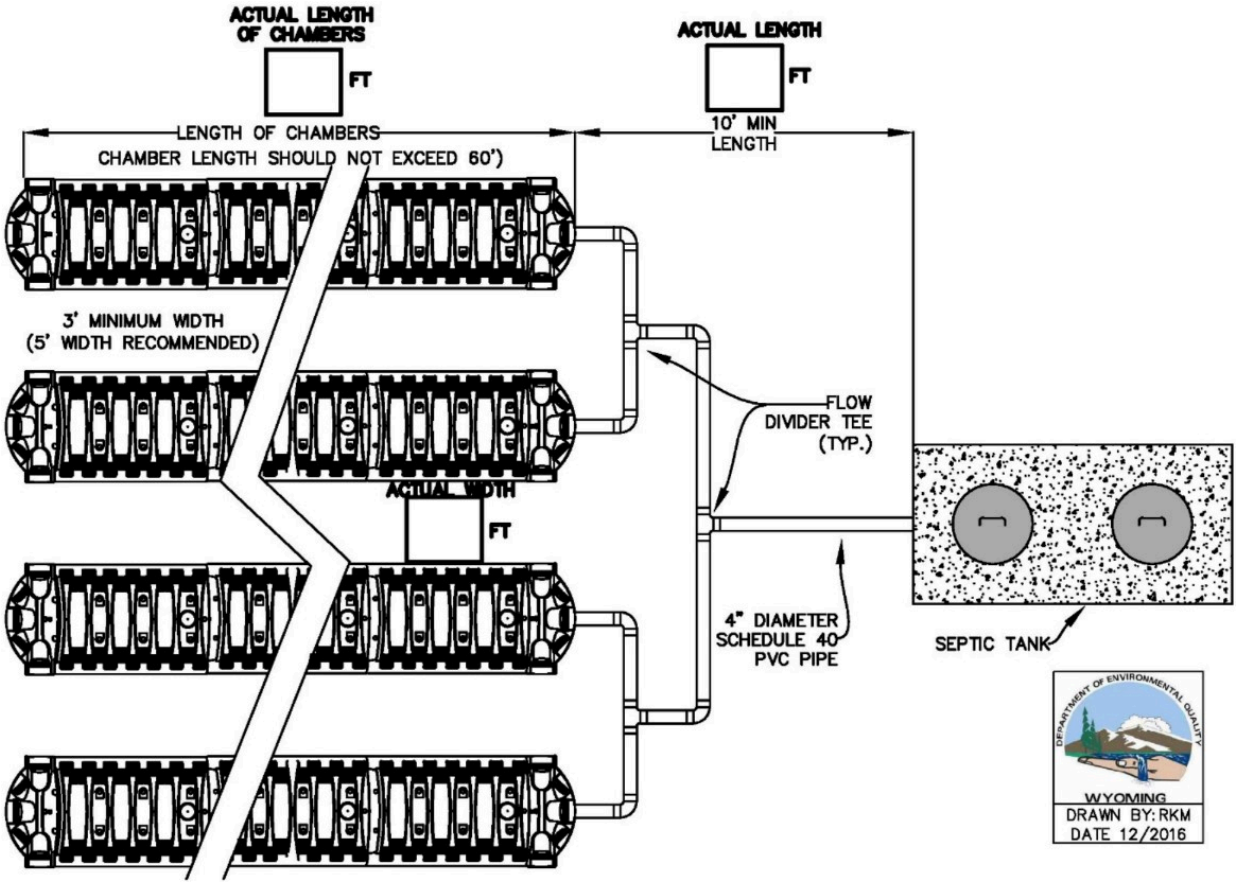
Chamber (See Table 1, Page 9)	Manufacturer			
	Model			
	Nominal Length (ft)			
	Nominal Width (in)			
	Nominal Height (in)			
	Effective Length (ft)			Box 1
Design	Required Leachfield Area (Line 12, Page 5)			Box 2
	Equivalent Area Per Unit (See Table 1, Page 9)			Box 3
	Number of Chambers			Box 4 _____ ÷ _____ = _____ Required Leachfield Area (Box 2) Equivalent Area Per Unit (Box 3) Number of Chambers (Round Up)
	Total Trench Length (ft)			Box 5 _____ * _____ = _____ Number of Chambers (Box 4) Effective Length (Box 1) Total Trench Length
Trench Layout	Number of Trenches to Use	**Total Trench Length (ft) (from Box 5)**	**Minimum Number of Trenches to Use**	Box 6 **Number of Trenches to Use =** _____ **Length of Trenches =** _____ *A distribution box, or D-box, is required when an odd number of trenches is used.
		<60	1	
		61-120	2	
		121-180	3*	
		181-240	4	
		241-300	5*	
		301-360	6	

Please fill in the boxes on the diagram below.



Chambered Trench Layout Diagram

Example Layout Diagram

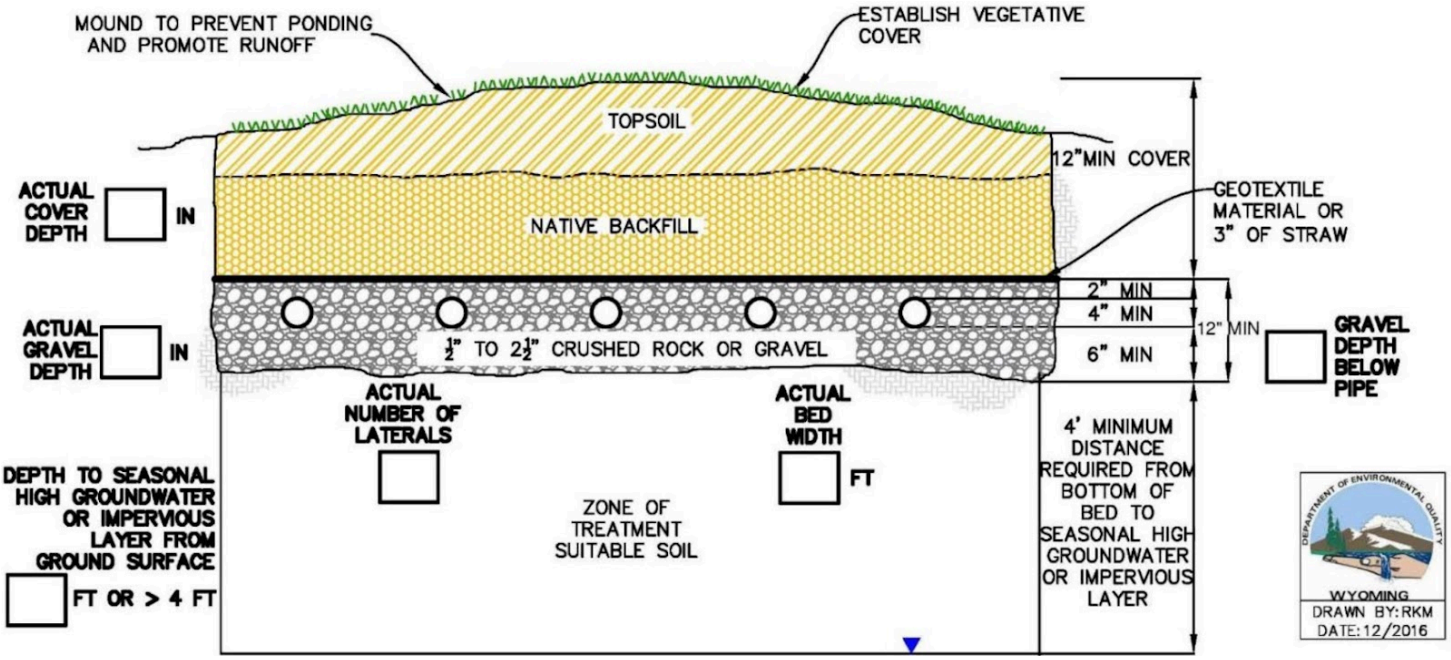


Draw your chambered trench layout below or attach a separate sheet.

Perforated Pipe Bed Layout Worksheet

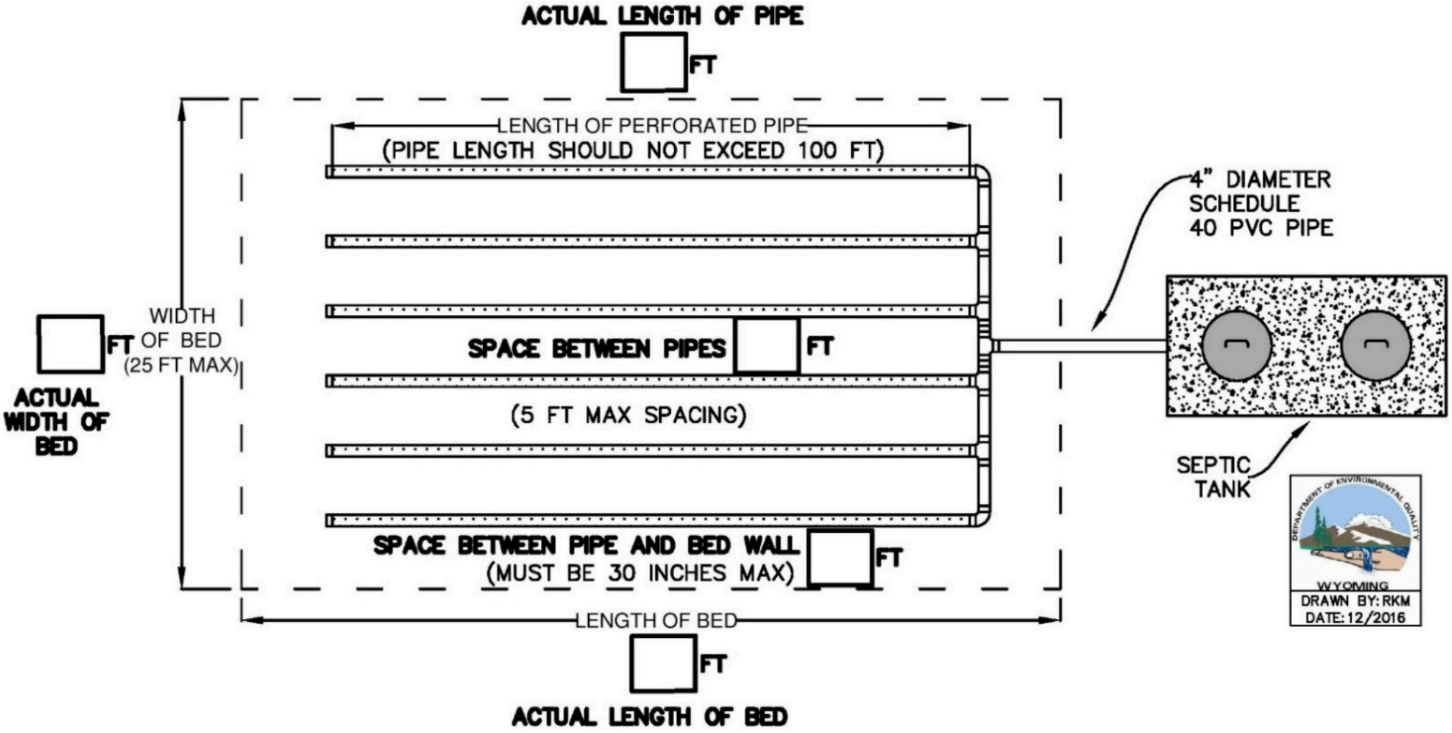
Design	Required Leachfield Area (Line 12, Page 5)		Box 1
	Total Excavated Depth (ft)		
	Depth below pipe (ft)		
Bed Layout	Bed Width (ft)		Box 2
	Bed Length (ft)		Box 3
	Bed Total Square Feet	_____ * _____ = _____ Bed Width (Box 2) Bed Length (Box 3) Total Bed Area	Box 4
	Is Box 4 greater than or equal to Box 1	☐ Yes ☐ No	
	☐	If No, adjust Bed Width (Box 2) and Bed Length (Box 3) until Box 4 is greater than Box 1	
	☐	If Yes, Complete bottom of Page 14	

Please fill in the boxes on the diagram below.



Perforated Pipe Bed Layout Diagram

Example Layout Diagram

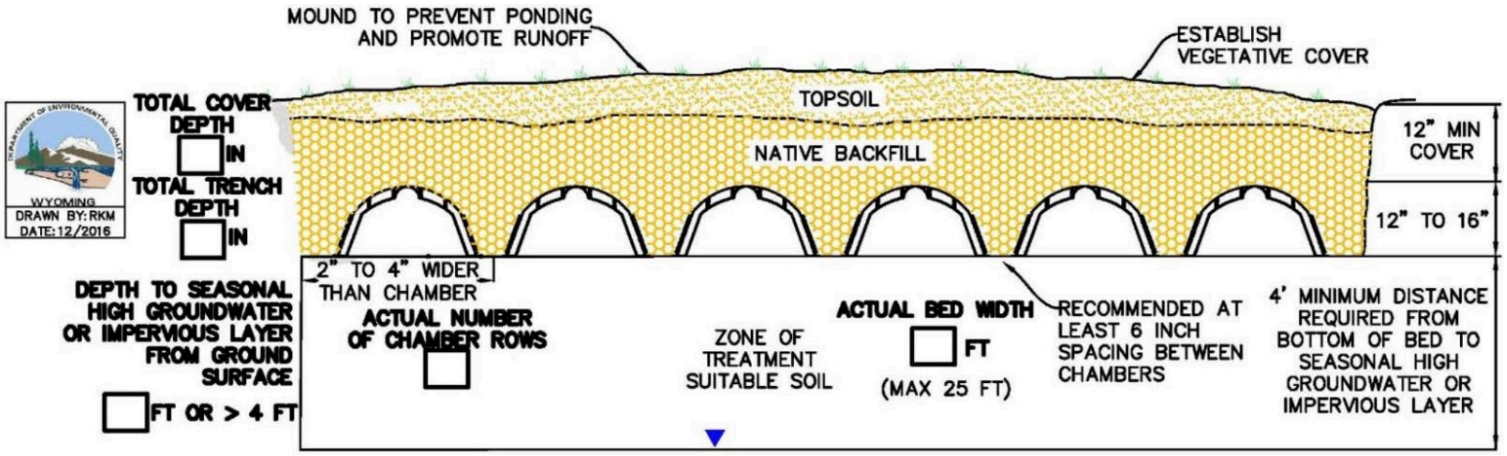


Draw your layout below or attach a separate sheet.

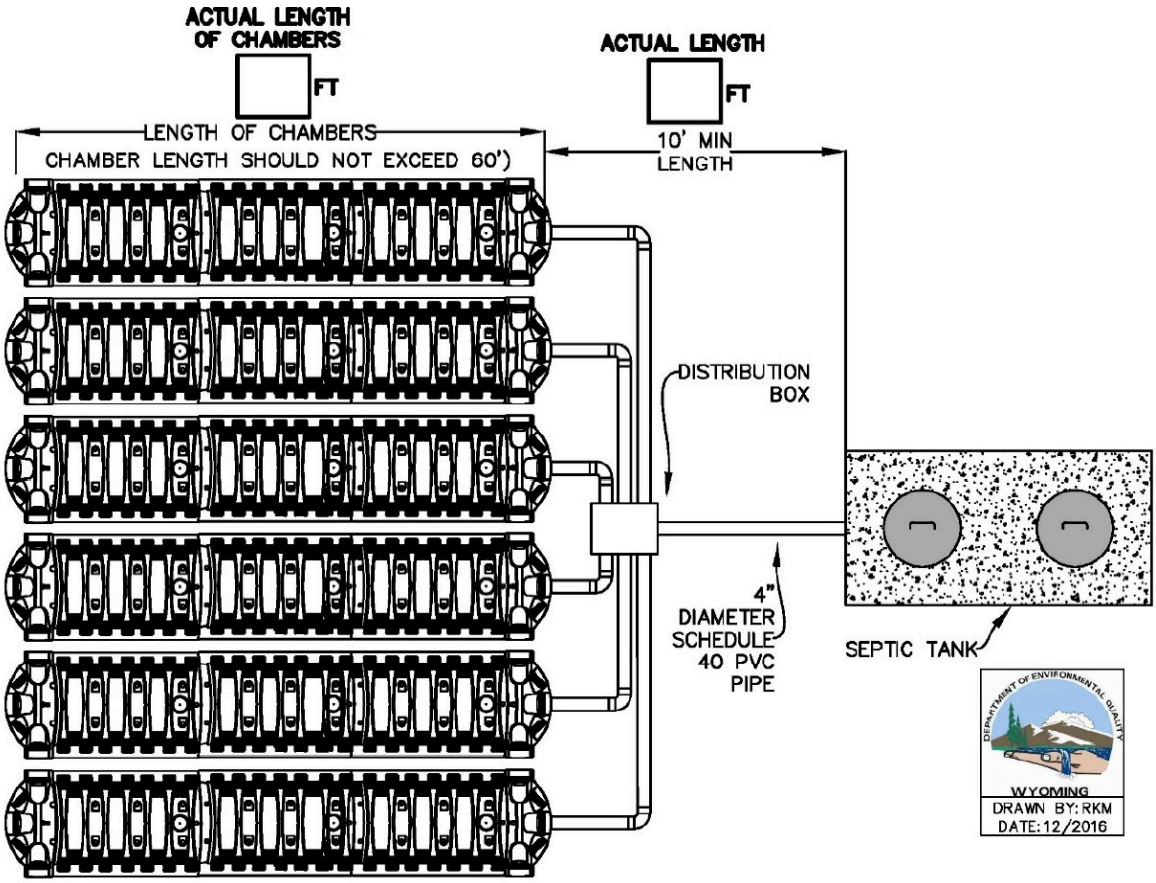
Chambered Bed Layout Worksheet

Chamber (See Table 1, Page 9)	Manufacturer			
	Model			
	Nominal Length (ft)			
	Nominal Width (in)			
	Nominal Height (in)			
	Effective Length (ft)			Box 1
Design	Required Leachfield Area (Line 12, Page 5)			Box 2
	Equivalent Area Per Unit (See Table 1, Page 9)			Box 3
	Number of Chambers			Box 4 _____ ÷ _____ = _____ Required Leachfield Area (Box 2) Equivalent Area Per Unit (Box 3) Number of Chambers (Round Up)
	Total Chamber (ft)			Box 5 _____ * _____ = _____ Number of Chambers (Box 4) Effective Length (Box 1) Total Chamber Length
Bed Layout	Number of Chamber Rows to Use	**Total Trench Length (ft) (from Box 5)**	**Minimum Number of Chamber Rows to Use**	Box 6 **Number of Rows to Use = _____** **Length of Rows = _____** *A distribution box, or D-box, is required when an odd number of trenches is used.
		<60	1	
		61-120	2	
		121-180	3*	
		181-240	4	
		241-300	5*	
		301-360	6	

Please fill in the boxes on the diagram below.



Chambered Bed Layout Diagram



Example Layout Diagram

Draw your chambered bed layout below or attach a separate sheet.