

## SEPTIC INFORMATION & APPLICATION

- The information compiled in this application is based on Nevada Administrative Code Chapter 444.750 through 444.8396, amended March 23, 1999.
- The State of Nevada Health Division must approve all individual sewage disposal systems for commercial usage. This approval is required prior to the issuance of any building permits.
- A completed septic application will be required for submittal; incomplete applications will not be accepted.
- Approval for individual sewage disposal system is required prior to the issuance of a building permit. (Permits are reviewed concurrently)
- An individual sewage disposal system may not be used on a parcel less than one (1) acre when served by a well. When parcel is served by a community water supply and the lot was created prior to January 1, 2000, minimum lot size is ¼ acre. Where the lot was created on or after January 1, 2000, minimum lot size is ½ acre.
- If a community or public sewage system is available within 400 feet of the nearest property line, an individual sewage disposal system may not be installed.
- A separate individual sewage disposal system must be installed for each dwelling, accessory dwelling, or structure with plumbing.

EXCEPTION: A detached garage may connect to the individual sewage disposal system provided the system is sized correctly, and there are no kitchen facilities. The system shall be sized to accommodate all plumbing fixtures of both structures.

- Section 444.796 of the Nevada Administrative Code allows the local health authority (Douglas County) to require verification from a licensed engineer to verify high ground water and bedrock, percolation test results and slope of property.
- Accurate percolation tests are critical in the design of individual sewage disposal systems.
- All percolation test locations are subject to field verification without notice. Location of percolation holes are required to be marked with 3' stake, with red flag attached.
- Minimum design rate is a 10-minute inch. Percolation rates that exceed a 60-minute inch shall require approval by the State of Nevada Health Division.
- Wells sealed to 50' must not be located closer than 100' of any leach field or septic tank. Wells not sealed must be located a minimum of 150' to any leach field, regardless of depth.
- The maximum effective depth when designing a septic system is 48".
- Drain rock must be ¾" to 2 ½" for all leach lines. All rock must be clean.
- Falsification of percolation test shall require test to be performed by a Nevada licensed civil or soils engineer.

# Douglas County Community Development SEPTIC PERMIT APPLICATION

Permit No.:	Permit Type:
Submittal Date:	

Assessor's Parcel # \_\_\_\_\_

Job Site Address \_\_\_\_\_

<b>Owner</b>	Owner's Name _____		Phone Number _____
	Mailing Address _____		
	City _____	State _____	Zip Code _____
<b>Applicant</b>	Applicant's Name _____		Phone Number _____
	Mailing Address _____		
	City _____	State _____	Zip Code _____
<b>Contractor</b>	Contractor's Name _____		Nevada License #/Limit Amount _____
	Mailing Address _____		
	City _____	State _____	Zip Code _____

New System      
 Replacment Septic System      
 Number of Bedrooms \_\_\_\_\_

SEPTIC WILL SERVE:

\_\_\_\_\_ Single Family Dwelling   
 \_\_\_\_\_ Mobile   
 \_\_\_\_\_ Accessory Unit   
 \_\_\_\_\_ Garage Without Kitchen Facilities

Tank Size \_\_\_\_\_   
 Manufacturer \_\_\_\_\_   
 Acreage of Parcel \_\_\_\_\_

PLEASE INDICATE WHO PERFORMED THE PERCOLATION TEST:

Percolation Test Performed By \_\_\_\_\_      Date \_\_\_\_\_

Owner/Builder       Contractor

Contractor Name \_\_\_\_\_      License Number \_\_\_\_\_

Does the plot plan accurately show location of percolation test?    YES / NO (Circle One)

I will save, indemnify, and keep harmless the COUNTY OF DOUGLAS, its officers, employees, and agents against all liabilities, judgments, costs, and expenses which may accrue against them in consequence of the granting of this permit, inspections, or use of any on-site or off-site improvements placed by virtue hereof, and will in all things strictly comply with all applicable rules, ordinances, and laws. Signature constitutes an attestation by the owner that application complies with all covenants, conditions, and restrictions.

**Applicant's Signature** \_\_\_\_\_      **Date:** \_\_\_\_\_

<b>FOR OFFICE USE ONLY</b>	Taken In By: _____		<b>BUILDING PERMIT FEES</b>		
	COMMENTS:		Permit Fee:	\$100.00	
			Other (Specify):		
			TOTAL FEES:		

**See Back for Site Plan Requirements**

**SEPTIC PERMIT APPLICATION**

# PLOT PLAN REQUIREMENTS

## Two (2) Separate Plot Plans Are Required for Septic Permit

### PENCIL DRAWINGS ARE NOT ACCEPTABLE

Please use this checklist to insure a completed plot plan. ***All of the following items shall be shown on the plan.*** Incomplete plot plans will be denied.

- Assessor's parcel number and address of property.
- Signature of owner or owner's representative.
- Show the distance of neighboring well and septic systems from the proposed septic system.
- Indicate scale used. Scale must be 1" = 10', 20', 30', 40', or 50' (maximum).
- North clearly indicated (North Arrow).
- Note acreage of the parcel.
- Provide dimensions of entire parcel.
- Show all existing and proposed structures, as well as any existing or future paved areas.
- Show all underground water and sewer line routing, existing and proposed.
- Dimensionally locate well on the lot. Show distance from the well to the nearest portion of the proposed septic system. Minimum distance allowed is 100' when well is sealed to 50' and 150' when well is not sealed.
- Dimensionally locate percolation holes. ***Note: Location of percolation test must be within the actual area of the proposed field.***
- Show (label and dimension) all proposed septic system components (distribution box, tank, leach lines, etc.) and note the size of the septic tank.
- Show the distance of the well and proposed septic system from all property lines.
- Note the number of bedrooms in the house, existing and/or proposed.
- Show the depth, length, width and spacing of septic field trenches.
- Show the distance of any watercourse (pond, lagoon, stream, drainage ditch, etc.) within 500 feet of proposed septic system. If there are none, then note that on the plot plan.
- Dimensionally locate sewer clean-out within 2' outside of the structure.
- Indicate percentage of slope in two (2) directions across the leach field.
- Note the distance to the nearest public sewer system.
- Indicate the location of the replacement leach field area.



## **Soils Analysis & Depth to Ground Water**

Define soil by type and color at 1' intervals to 10' below grade.

Identify highest potential to ground water.

<b>Soils Analysis</b>	<b>Depth to Ground Water</b>
<b>1'</b>	<b>1'</b>
<b>2'</b>	<b>2'</b>
<b>3'</b>	<b>3'</b>
<b>4'</b>	<b>4'</b>
<b>5'</b>	<b>5'</b>
<b>6'</b>	<b>6'</b>
<b>7'</b>	<b>7'</b>
<b>8'</b>	<b>8'</b>
<b>9'</b>	<b>9'</b>
<b>10'</b>	<b>10'</b>

## Calculating Size of System

**NOTE:** The system is sized based on tank size, perc rate and effective depth.

<u>Number of Bedrooms</u>	<u>Minimum Liquid Capacity of Tank (in gallons)</u>
3 or less	1,000
4	1,200
5 or 6	1,500
More than 6	150 gallons for each additional bedroom must be added to 1,500 gallons.
<u>Percolation Rate</u>	<u>Design Application Rate (gallon/square foot)</u>
0-10	1.6
11-15	1.3
16-20	1.1
21-25	1.0
26-30	0.9
31-40	0.8
41-50	0.7
51-60	0.6

### Example of how to size your system

Step 1 – Choose tank size based on number of bedrooms.

Step 2 – Use the slower percolation rate to determine gallon/square foot design application rate.

Step 3 – The absorption area is calculated by dividing the capacity of the septic tank by the design application rate as follows:

4 bedroom house = 1,200 gallon tank

Perc rate of 23 minutes = 1

1,200 by  $\div 1 = 1,200$  square feet

Step 4 – Multiply the effective sidewall by 2, maximum depth is 4',  $4 \times 2 = 8$ .

Step 5 – Determine the required length by dividing the required absorption area by the effective sidewall as follows:

$1,200 \text{ square feet} \div 8 \text{ (depth of trench multiplied by 2)} = 150 \text{ lineal feet.}$

Step 6 – Maximum length of leach line is 110 feet. A minimum of two trenches, 75 feet long with 4 feet of aggregate beneath the distribution lines, is acceptable.

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**Enter your calculation below:**

**Number of Bedrooms** \_\_\_\_\_ **Tank Size** \_\_\_\_\_ **Perc Rate** \_\_\_\_\_

**Tank Size** \_\_\_\_\_  $\div$  **Design Application Rate** \_\_\_\_\_ = \_\_\_\_\_

**Sidewall depth X 2 =** \_\_\_\_\_ **Number & Length of lines** \_\_\_\_\_

**Or Number of Infiltrators used** \_\_\_\_\_.