



## Environmental Health Division

### Application for Individual Sewage Disposal System

Email Application to: [eh@carson.org](mailto:eh@carson.org)  
**Permits are NON-Transferrable and NON-Refundable**

Carson City Health and Human Services  
 Environmental Health Division  
 900 E Long St Carson City, NV 89706  
 Phone: 775-887-2190 x 80029    [Gethealthycarsoncity.org](http://Gethealthycarsoncity.org)



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**General Instructions: Please fill out the application in full. Incomplete applications may cause your application to be rejected or delayed. Two (2) percolation tests are required for each system. The permit will not be issued without a complete soil profile or percolation test data. Plan review fee is \$75. Fees are due upon submission. Please make your payment online with the QR code above. Contact our office for more information.**

#### General Information

Applicant Name:		Applicant Phone:	
Mailing Address:		Applicant Email:	
Construction Location:	City:	State:	Zip:
Acreage of Lot:	Number of Bedrooms:		

#### Installer Information

Installer Name:		Installer Phone:	
Installer Address:		Installer Email:	
Installer Business Name: (if applicable)	City:	State:	Zip:

#### Water Source Information (Include copy of Well Driller's cert.)

Select ONE:	Private Well (new or existing)	Shared Well	Community Public Water System - Name:
Driller Name:	Well Diameter:	Well Depth:	
Driller Phone:	Casing Depth:		
Driller Address:	City:	State:	Zip:

#### Individual Sewage Disposal System

##### Septic Tank

Date of Install (Approx):	Number of Bedrooms:
Size of Tank:	Manufacturer:
Distance Well to Tank:	Distance to Property Line:
Distance to Surrounding Wells:	Distance from Foundation to Tank:

##### Leach Field

Select ONE:	Standard System	Chambered System	Engineered System - Type:
Chamber Manufacturer:	Distance: Residence Well to Leach Field:		
Number of Lines:	Distance: Surrounding Wells to Leach Field:		
Length of Each Line:	Distance: Property Line to Leach Field:		
Number of Chambers:	Width:	Length:	Model No.:

##### Trench Detail

Distance Between Lines:	Trench Width:
Trench Depth:	Depth of Rock (Under Pipe):
Leach Rock Size:	Amount of Rock Ordered:

##### Cover Material

Untreated Building Paper	Geotextile
Straw	Other:



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**Soil Profile Data Sheet**  
 Email Application to: eh@carson.org



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**Soil Profile Data Sheet**

General Information		Please reference Nevada Administrative Code 444.7962-444.7972 for complete instructions	
Project Name:		Technician Name:	
Test Specifications:		Date:	

**Test Pit #:**

Depth in Feet	Description of Soil

Test Pit Information Required		
Depth to Water?		
Season High Groundwater?		
Was Bedrock Encountered?		
If so depth to bedrock was (Ft/In)?		
Total Depth of Test Pit (Ft/In)?		
<p><i>NOTE: Except as otherwise provided by a specific statute or regulation, a minimum of two test pits must be excavated and the date of those tests must be logged. The soil profile from the test pits and the percolation results must be included as part of the plans submitted for review. A soil profile to a depth that is at least 5 feet below the bottom of the absorption trench must be provided in the appropriate space in the log for the profile of the soil.</i></p> <p><i>I certify that I am the legal owner of the property or an authorized representative of the property owner and that the information on this application is true and correct.</i></p>		
Signature of Representative	Printed Name of Rep.	Date



**Environmental Health Division**  
**Application for Individual Sewage Disposal System**  
**Application for Septic Tank Loan Certification**  
 Email Application to: eh@carson.org



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**Application for Septic Tank Loan Certification**

Date of Request:	
Requested by:	
Real Estate/Loan Office:	
House Condition (Occupied or Vacant):	

Owners Name (First and Last):	
Owners Phone:	
Owners Email:	
Owners Address:	

Property Address:	
County of Property Location:	
Assessor's Parcel Number:	
Location Description:	
Property Description:	
Approx Last Date System was Pumped:	

Installation Date (if known):	
Installer's Name (if known):	
Tank Size:	(gal)      No. of Leach Lines & Length:
Copy of Occupancy Permit attached:	

**Describe or Draw approximate location of where individual sewage disposal system is located on the lot below:**

*NOTE: If there are unsociable pets on the property that prevent the inspector from entering the yard of the house or otherwise impede the inspection, no inspection will be performed. If the pets are not receptive to a stranger in their yard, please have your client lock them up until after the inspection is completed.*

***I certify that I am the legal owner of the property or an authorized representative of the property owner and that the information on this application is true and correct.***

<b>Signature of Representative</b>	<b>Printed Name of Rep.</b>	<b>Date</b>



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## Information for Individual Sewage Disposal System

Regulations can be found at the Nevada Law Library: <http://www.leg.state.nv.us/nac/nac-444.html>

Use this Individual Sewage Disposal System development guide to help you submit a complete application. We will review your proposed development application to ensure that it meets requirements of State of Nevada, Nevada Administrative Code (NAC) 444. Incomplete submittals may result in delay of approval and additional fees.

INDIVIDUAL SEWAGE DISPOSAL SYSTEM FEE SCHEDULE	
1. For a permit to construct an individual sewage disposal system for a single-family dwelling, including a review of the plan for the system and an initial inspection of the system	\$75
2. For a permit to construct a residential system that utilizes an alternative treatment or disposal system design, including a review of the plan for the system and an initial inspection of the system	\$75
3. For a review of the plan for a primary treatment unit	\$75
4. For the resubmission of or revision to a plan described in subsection 1, 2 or 3 or tank only replacements	\$50
5. For a reinspection of an individual sewage disposal system	\$50

### Construction Permits

Construction permits are valid for 1 year from the date of issue. A permit is considered void 12 months after the date of issuance if the proposed construction, alteration, or extension of the individual sewage disposal system is not completed within that period. A fee of \$75 is required to extend a permit to construct an individual sewage disposal system for a 1-year period after the expiration date of the permit.

### Occupancy Permits

The individual sewage disposal system must be inspected, and all additional requirements met (as-built plans and well logs submitted, etc.) before an occupancy permit will be issued. Please be aware this document is required to connect to utilities.

### Application and Design Plan Requirements

All application submittal packages **must include** the following:

- Application filled out and signed
- Application fee [Pay online with our QR Code, Contact our office for correct amount of fees.]
- One (1) copy of design plan; with the following information [NAC 444.784 (3)]
  - (a) The title and date of the plan and the signature of the owner or his representative.
  - (b) A map of the area in which the system will be located that shows the location of the roads and streets.
  - (c) The location and distance to well and sewage systems on surrounding lots. If the lots are vacant, indicate.
  - (d) The direction of north clearly indicated.
  - (e) The distance within 500 feet to any watercourse indicated, including, without limitation, any pond, lagoon or stream. If there are no watercourses, the plot plan must so indicate.
  - (f) The location of each percolation test hole and boring test hole.
  - (g) The location and depth of each proposed and/or actual well located within 200' of the proposed individual sewage disposal system. A well log must be included for any well located less than 150' from the absorption field.
  - (h) Each component of the system, which must be properly marked and located at specified distances.
  - (i) The distance to city sewers. If there are none, the plot plan must so indicate.
  - (j) The distance of each well and soil absorption system to the property line.
  - (k) The scale to which the plan is drawn, such as 1 inch = 30 feet, 40 feet, 50 feet, 60 feet, etc.
  - (l) The number of bedrooms in the single-family dwelling.
  - (m) The capacity of the septic tank.
  - (n) The maximum slope across the absorption system area.
  - (o) The dimensions of the lot.

- (p) The depth, length, width and spacing of any absorption trenches.
- (q) The location of the water supply lines, building sewer lines and other underground utilities.
- (r) The location of the structures, paved areas, driveways, trees and patios.
- (s) The location of the source of water to be used by the system, including, without limitation, a well or other source approved by the administrative authority.
- (t) The location of the reserve absorption area, which must be of a size not less than the size of the primary absorption area.

- Local building department approval (if required)
- Percolation Test Data
- Soil Profile

Capacity of Septic Tank Serving a Single-Family Dwelling [NAC 444.8306]	
Number of Bedrooms	Minimum Liquid Capacity of Tank (in Gallons)
3 or less	1,000
4	1,200
5 or 6	1,500

Individual Sewage Disposal System Set Back Distances			
Minimum Horizontal Distance, required from	Building Sewer Drain	Septic Tank	Disposal Field (Shallow)
Building or Structure	---	8'	8'
Property Lines	10'	10	10
Water Supply Wells (Sealed to 50 feet)	50'	100	100
Water Supply Wells (NOT Sealed to 50 feet)	50'	100	150
Public Water Supply Wells	50'	150	150*
Streams or Watercourses	50'	100	100*
Drainage Channels	25'	25	25
Large Trees or Shrubs	---	10	10
Disposal Fields	---	5	---
Community Main Water Line	10'	10	25
Individual Water Service Line	10'	10	25
Dry Wells	---	6	20

*\*The required distance between a well and the components of an individual sewage disposal system may be increased by the health authority depending on the depth to the water table, soil profile and other site characteristics.*

Absorption Trench Sizing and Detail				
This chart may be used for 1,000 gallon tanks ONLY.				
Perc Rate	Feet of Gravel Under Leachline			
	1 Ft	2 Ft	3 Ft	4 Ft
10	316'	158'	106'	80'
15	387'	194'	129'	97'
20	447'	224'	149'	---
25	500'	250'	167'	---
30	(547')	273'	182'	---
35	(591')	296'	197'	---
40	(632')	316'	210'	---
45	(670')	335'	224'	---
50	(707')	353'	235'	---
55	(741')	370'	247'	---
60	(775')	387'	258'	---

**Leach Line Calculations**

Example: A 3 bedroom home with a 1,000 gallon tank a percolation rate of 30 and an 2 feet of gravel under the leach line.

$$\frac{(\text{TankSize}) \times (\sqrt{\text{perc rate}/5})}{2 \times \text{FtGravelUnderLine}^*}$$

$$\frac{(1000) \times (\sqrt{30/5})}{2 \times 2}$$

= 273.86 ft of Leach Line

Round this number up to 274. This system would best be served by 3 lines, which are 92' feet long.  
(4 Ft Max for calc)\*

Note: No one perforated line may exceed 100' in length; lines must be equal in length. Distribution boxes are required when more than 100' of line is needed.



## Absorption Trench Information

### General Information

- If an absorption trench is more than 6 feet in depth below the finished grade, the aggregate must extend to not less than 12 inches below the ground surface to avoid an anaerobic condition in the trench.
- The aggregate in an absorption trench must be covered with untreated building paper, straw, geo-textile fabric, or a similar covering approved by the administrative authority, and the top of the trench must be overfilled with not less than 4 inches or more than 6 inches of soil.
- The percolation rate of the soil must be used to determine the design application rate in accordance with the following table:

Percolation Rate (minutes/inch)	Design Application Rate (gallons/square foot)
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

- If the percolation rate of the soil is greater than 60 minutes per inch, the system must be designed by an engineer.
- The required capacity of the septic tank must be divided by the design application rate to calculate the minimum absorption area required.
- The area of the absorption trench must be determined by calculating the size of the effective area of the sidewall needed beneath the distribution line. Not more than 4 feet of aggregate below the distribution line may be used to calculate the effective area of the sidewall, except that aggregate which is in excess of 4 feet below the distribution line may be used to calculate the effective area of the sidewall with the approval of the administrative authority. The required length of distribution line must be determined as follows:
  - The minimum size required for the absorption area (in square feet) divided by [2 times the depth of the aggregate below the distribution line (in feet)] = required length of distribution line (in feet).



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**Percolation Test Data**

**Please reference Nevada Administrative Code 444.7962-444.7972 for complete instructions.**

<b>TEST PIT #:</b>			<b>HOLE #:</b>	
<b>Depth from Native Ground Surface that Percolation Test was conducted:</b>				
<b>Presoak Start Time:</b>		<b>Presoak End Time:</b>		<b>Total Hours:</b>
<b>TIME</b>	<b>DEPTH TO WATER</b>	<b>INTERVAL</b>	<b>DROP OF WATER</b>	<b>MIN/INCH</b>
<b>Percolation Rate:</b>		<b>Minutes per inch</b>		

<b>TEST PIT #:</b>			<b>HOLE #:</b>	
<b>Depth from Native Ground Surface that Percolation Test was conducted:</b>				
<b>Presoak Start Time:</b>		<b>Presoak End Time:</b>		<b>Total Hours:</b>
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