Gravity Septic Permit Installation Application

Washington Administrative Code (WAC) 246-272A and local On-site Sewage Disposal code 8.10 requires individuals to obtain an on-site sewage permit prior to construction. In Klickitat County proof of adequate wastewater disposal is required prior to issuing a building permit with production of wastewater. Local code 8.10.260(F) requires every place where people congregate or reside shall be provided a means of sewage disposal approved by the Local Health Officer. Final designs should be completed in dark ink and legible. Once submitted for review, all fees are non-refundable. If a homeowner chooses to install the system themselves, they will need to pass the WOSSA homeowner installer test to do so. **All on-site septic permits are valid for 1 year and will require renewal when expired.**

The system owner is responsible for operating, monitoring, and maintaining the system to minimize the risk of failure. This includes securing the correct permits prior to construction or repairs and performing system evaluations. During the removal or pumping of solids, the homeowner shall only hire approved pumpers licensed in Klickitat County. System owners are also responsible for protecting the tank, absorption area, and the reserve area from; impervious materials, surface drainage, soil compaction, soil removal, and ensure the flow of sewage does not exceed designed capacity.

Owner Information

Owner Name: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

Site Address: _____

Parcel Number: _____ Parcel Size: _____

Licensed Installer: _____

Permit Proposal

- ☐ Standard Gravity Installation ($500)
- ☐ Septic Tank Replacement ($100)
- ☐ Permit Renewal ($150)
- ☐ Connection to a Community System ($200)
- ☐ Waterless toilet permit review ($100)
- ☐ SSAS Replacement with a soil log ($150)
- ☐ SSAS Replacement with no soil log ($500)
- ☐ System Expansion with a soil log ($150)
- ☐ System Expansion with no soil log ($500)

Sewage Source:

- ☐ Residential
- ☐ Other: _____

Drinking Water Source:

- ☐ Private Well
- ☐ Shared Well
- ☐ Public Water Connection

For the next section you will need your site evaluation report.

SECTION 1: SYSTEM CALCULATIONS

Step 1: Per WAC 246-272a & local code 8.10, the system design flow is determined by the number of bedrooms multiplied by 120 gallons. The minimum design flow is 240 gallons per day (gpd). For example; a 3-bedroom home multiplied by 120 gallons per day is 360 gallons per day. Please fill in the shaded area below with your project details. Contact the sanitarian if you are planning connect an ADU in the future.

# of bedrooms: _____ multiplied by 120 gpd = _____ gallons per day design flow

Step 2: For a home with 4 bedrooms or fewer, the minimum septic tank size is 1000 gallons. For homes with more than 4 bedrooms, an additional 250 gallons per bedroom is required. For example; a 3-bedroom home is required to have a 1000-gallon tank. A 4-bedroom home with a 1-bedroom accessory dwelling unit attached to the septic system must have a minimum of 1250 gallons capacity. Please fill in the shaded table below with your project details.

# of bedrooms: _____ = _____ minimum tank volume

Step 3: Refer to your site evaluation report to calculate the maximum trench depth. For a gravity dispersal system in Washington State, there must be 36 inches of vertical separation from any restrictive layer or water table. For example; if the depth of the test pit is 54 inches, and we need 36 inches of vertical separation, the trench depth is 18 inches. Please fill in the shaded table below with your project details.

Depth of the test pit or restrictive layer _____ minus 36 inches = _____ trench depth

Step 4: Refer to your site evaluation report for the "application rate" to calculate the necessary square footage for the infiltration area. To determine the square footage, divide the design flow from Step 1 by the application rate listed in the site evaluation report. For example; 360 gallons per day divided by a .4 application rate equals 900 total square feet. Please fill in the shaded table below with your project details.

Design flow _____ divided by the application rate _____ = _____ square footage

Step 5: If are **not** installing pipe and gravel, skip step 5 and proceed to step 6. In Klickitat County the typical design trench width is 3 feet. You may opt for a 2-foot-wide trench, but the total square footage will still need to be shown in the design and constructed during the installation. In this step we divide the total square footage from step 4 by the typical trench width of 3 feet. For example; the square footage from step 4 is 900 square feet, dividing that by a 3-foot-wide trench, is 300 linear feet of pipe and gravel. If you are planning to install drain rock, please fill in the shaded table below with your calculations.

Square footage _____ divided by the trench width _____ = _____ linear feet of gravel

Step 6: If you plan to use gravel-less product, like EZflow™ (*peanuts*) or Infiltrator Chambers™ (*domes*), you may reduce the total square footage by a percent based on your soil type. Refer to your site evaluation report for the soil type. For soil types 3 through 6, there is a 40% reduction. In soil type 2, there is only a 20% reduction. For example; if the soil type is 5, we multiply the total square footage from step 4 by .6 (60%) to get the remaining square footage given by a 40% reduction. Please fill in the shaded table below with your project details.

Square footage _____	multiplied by .6	= _____	reduced infiltration area
Reduced infiltration area _____	divided by a 3-foot trench	= _____	linear feet of gravel-less

Please note, when considering gravel-less products there are additional manufacturer requirements for installation. We encourage the homeowner to discuss these products with the installer and we encourage the homeowner to fully understand costs associated with the product installation.

Final Design Calculations

Number of Bedrooms:	Design Flow:
Application Rate:	Maximum Trench Depth:
Linear Feet of Drain Rock:	Septic Tank Volume:
Linear Feet of Gravel-less:	Pump Tank Volume (if required):

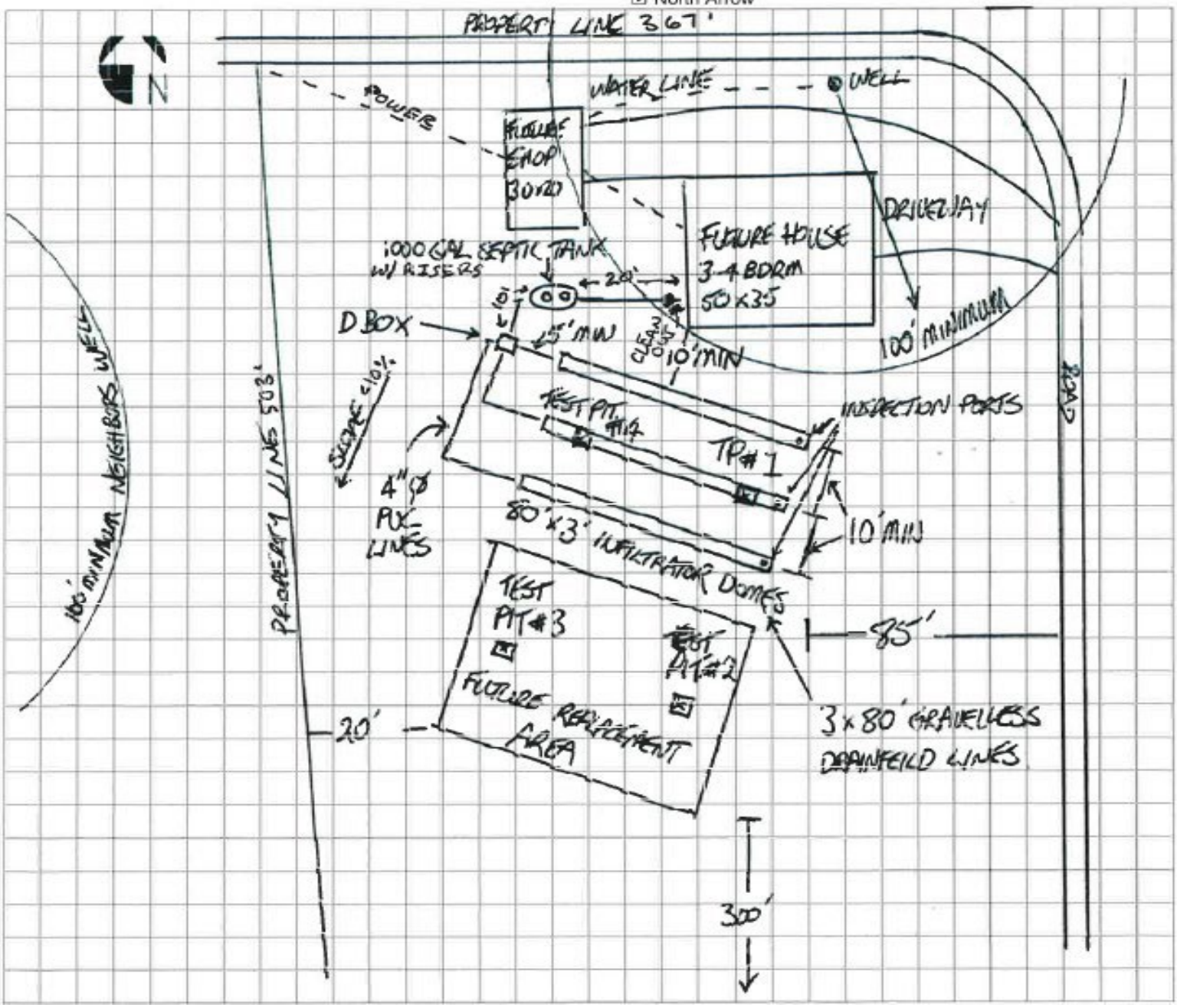
Continue to the next page

SECTION 2: DETAILED SITE PLAN CHECK LIST (example on the next page)

- ☐ Show property lines & dimensions
- ☐ Show all buildings, roads, driveways, or parking
- ☐ Show location of the initial area and the reserve area
- ☐ Show observation ports, clean outs, & risers
- ☐ Label setback distances from any surface water
- ☐ Show the location of any drinking water source
- ☐ Label the building sewer out
- ☐ Show length & location of transport lines
- ☐ Show the location of all test pits
- ☐ Show location of all other trenched utilities
- ☐ Show & label setback from any well or spring
- ☐ Show length and width for the trench
- ☐ General topography (slope direction & %)
- ☐ Show location of all trenched utilities
- ☐ Show any sewer lines under roads & driveway(s)
- ☐ Show North arrow
- ☐ List the pipe material used and diameter
- ☐ Show material used for infiltration (drain rock etc…)

Example

- ☑ Show property lines & dimensions
- ☑ General topography (direction and slope %)
- ☑ Show all buildings, roads, driveways, & parking
- ☑ Location of initial &reserve dispersal areas, and test pits
- ☑ Setbacks to surface water, seasonal streams, creeks
- ☑ Location of drinking water source, water lines, septic tanks, d-box
- ☑ Length of building sewer out & transport lines
- ☑ List piping material used and diameter
- ☑ Show lines encased or buried under roads
- ☑ Location of observation ports, clean outs, & risers
- ☑ Location of all trenched utilities
- ☑ Length & width of each lateral & material type
- ☑ North Arrow



Goldendale Office
115 W. Court St
Box 103
Goldendale, WA 98620
509-773-4565

Klickitat County Health Department
Monday-Friday, 8am to 5pm

White Salmon Office
501 NE Washington St/ PO Box 159
White Salmon, WA 98672
509-493-1558

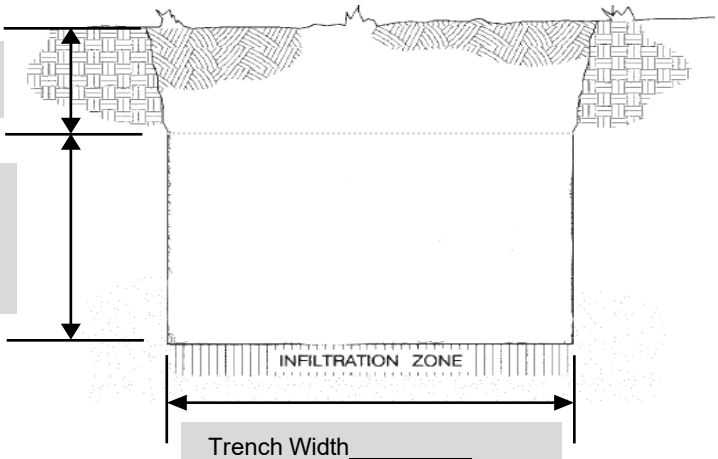
SECTION 3: VERTICAL CROSS SECTIONS

Vertical cross sections are required per WAC 246-272a & Local code 8.10 design criteria. Please provide the required information below in the shaded area. You may also substitute any cross section below with the manufacturer's tech sheets.

Trench Cross Section

Native soil cover _____

Depth of Material Used_____
(e.g. pipe & gravel, EZ Flow, Chambers)



Trench Width_____

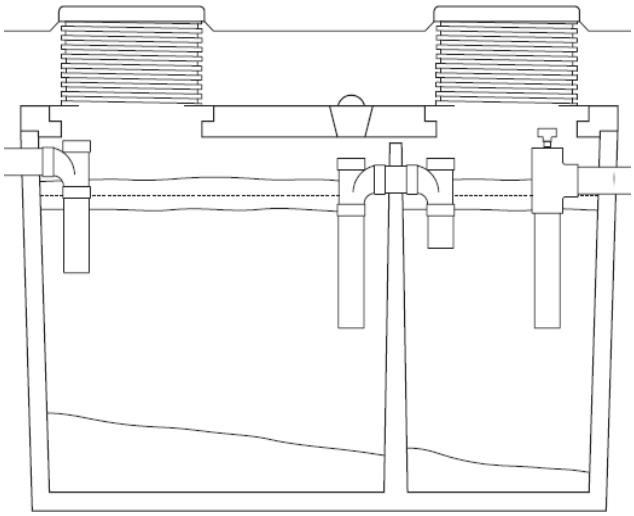
Septic Tank Cross Section

Tank Model: _____

Tank Manufacturer: _____

Effluent Filter Model: _____

Cover Material Depth: _____



Owner or Authorized Agent: I, the undersigned, hereby certify that the information provided is true and accurate to the best of my knowledge. I hereby assume all responsibility for the accuracy of the information contained herein and grant Klickitat County Health Department staff permission to enter the above listed property for the purpose of this application.

Homeowner Signature _____ Date _____