	INFORMATION BULLETIN LAND USE SERVICES Building and Safety Division	Number: IB-00018
		Code References: N/A
Building Official Signature: <i>Maged Soliman</i> Maged Soliman, PE, CBO		Effective Date: August 21, 2024
Subject: Onsite Wastewater Treatment Systems SOP		

1.0 PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to clarify the Building and Safety design requirements for Onsite Wastewater Treatment Systems (OWTS) within the County of San Bernardino as adopted in the Local Agency Management Program (LAMP). The provided requirements listed in this SOP do not identify all applicable requirements within the LAMP. The applicant is required to comply with all code requirements set forth within the LAMP.

2.0 HISTORY

First Draft, May 01, 2019.

3.0 POLICY/PROCEDURE

AUTHORITY

The information provided in this handout is a summary of the Onsite Wastewater Treatment System requirements pursuant to Assembly Bill 885, The California Plumbing Code (CPC), the Local Agency Management Program (LAMP), and The Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems adopted by the State Water Board in June 2012.

Permits

- A. Prior to the installation of a new or the replacement of the existing sewage disposal system, a building permit shall be required from the Land Use Services.

Minimum Qualifications and Certifications for On-site Wastewater Treatment Practitioners.

B. Qualified Designer for the Onsite Wastewater Treatment Systems:

1. Registered Civil Engineers
2. Certified Engineering Geologist
3. Registered Environmental Health Specialists (REHs)
4. Registered Geologist
5. Geotechnical Engineer
6. Licensed Contractor
 - a. Class A
 - b. C-36
 - c. C-42



LAND USE SERVICES
Building and Safety Division
INFORMATION BULLETIN
Number: IB-00018

C. Qualified Installers for Onsite Wastewater Treatment Systems (New and Replacement):

1. Licensed Contractor
 - a. Class A
 - b. C-36
 - c. C-42

D. Qualified persons to perform a Percolation Test:

1. Registered Civil Engineers
2. Certified Engineering Geologist
3. Registered Environmental Health Specialists (REHs)
4. Registered Geologist
5. Geotechnical Engineer

Plans and requirements

- E. The construction and installation of septic tanks, leach lines, infiltrators, and seepage pits for single-family residences will be reviewed and permitted by the Building and Safety Division of Land Use Services.
- F. A building permit application, and an Onsite Wastewater plot plan is required to be submitted to the Building and Safety Division for review and approval as cited under 2022 CPC H 1201.00.
- G. All Septic Tanks, Leach lines, Infiltrators, and Seepage Pits as well as Supplemental Treatment Systems applications will require a design rate from an approved Percolation Report, please contact the Environmental Health Services (EHS) for submittal requirements at <http://wp.sbcounty.gov/dph/programs/ehs/wastewater/> or 1-(800) 442-2283.
- H. The Onsite Wastewater plot plan is required to contain the following information:
 1. Owner Name, Job site Address, and Assessor Parcel Number (APN).
 2. Scope of work.
 3. Size of the new or existing septic tank.
 4. North Arrow, property lines, and names of the street(s) abutting the property.
 5. Location of existing or proposed dwelling(s) and accessory structure(s).
 6. Number of Bedrooms (Existing versus Proposed)
 7. Location of guest's house or 2nd dwelling sharing the same system.
 8. Location of a septic system:
 - a. Size and depth of existing or proposed seepage Pit (if applicable).
 - b. Width, depth, and length of existing or proposed leach lines (if applicable).
 - c. The location of the 100% expansion area.



LAND USE SERVICES
Building and Safety Division
INFORMATION BULLETIN
 Number: IB-00018

- 9. Minimum Required Setback Dimension(s)- See sample plot plan.
- 10. Location of private water wells and/or private water lines servicing the buildings.
- 11. Location of large trees greater than one foot in diameter.
- 12. Ground surface on sloping ground.
- 13. Location of public water wells and/or public domestic water lines.
- 14. Groundwater.
- 15. Distribution box.
- 16. Streams and other flowing bodies of water.
- 17. Location of Public Water Wells

I. In the event that the proposed Onsite Wastewater Treatment System cannot meet the requirements of the Local Agency Management Program (LAMP), a Supplemental Treatment System and/or Alternative Dispersal System determined by EHS will be required.

J. Septic Tank Capacity- Single Family Residences

The septic tank capacity for a single-family residence is based on the number of bedrooms contained in the unit. The table below and 2022 CPC Appendix H Table 201.1(1) provides a summary of the septic tank capacity requirements for a single-family residence.

Number of Bedrooms	Gallons of Effluent Per Day	Gallons of Septic Tank Capacity
1-2	500	750
3	670	1,000
4	800	1,200
5-6	1,000	1,500

The above design flows are used for a single primary dwelling unit on a ½ acre of land, any additional structures added to the existing development that result in an increase in effluent flows shall be reviewed and approved by EHS.

K. Leach Line Requirements

In accordance with the CPC and the requirements of the OWTS Policy, when computing the absorption area of the leach line dispersal system, the maximum allowable infiltrative area per square foot for a trench is 7 square feet. The maximum allowable width of the trench is 3 feet in a 36" wide trench. Where trenching chambers are used, the maximum allowable decreased leaching area per IAPMO certified infiltrator type system shall be computed by using a multiplier of 0.70. No variance will be granted for systems using a multiplier of less than 0.70. Leach lines cannot exceed 100 feet in length. If the system



LAND USE SERVICES
Building and Safety Division
INFORMATION BULLETIN
Number: IB-00018

needs more than 100 feet of trench, the length will be split as evenly as possible between 2 or more leach lines.

L. Seepage Pit Requirements

The use of seepage pits as a dispersal field will be allowed in instances where leach lines are not feasible and where the minimum groundwater separation requirements have been met. No series, “daisy chain” connections to existing or new seepage pits will be permitted. The use of seepage pits in mountain areas is also prohibited under Section 33.0893 of the County Code. Prior to the submittal of a building permit application for the installation and use of a seepage pit, review and approval from EHS is required.

M. Accessory Dwelling Unit Requirements

The County of San Bernardino has a minimum lot size requirement for the subdivision of property that relies on OWTS. In areas within the County that allow OTWS, the minimum lot size of ½ acre per dwelling unit is required for new developments. When a structure is added to the existing development and increases the wastewater flows to the existing septic system the development will be considered a new development, such developments are required to be re-evaluated by EHS. Based on this information, the following are the minimal requirements for proposed new developments:

1. Where the property is more than 1 acre with an existing single-family dwelling unit, and the structures will be serviced by a common OTWS system, the OWTS sizing will be based upon CPC Table H 201.1(1) Column B.
2. Where the property is ½ acre with an existing single-family dwelling unit, an **Advanced Treatment Unit** that provides supplemental treatment and alternative dispersal systems for the additional structure may be required. Connection to the primary septic will not be permitted without an **Advanced Treatment Unit** in place.
3. Where the property is less than 0.5 acres and was subdivided prior to 1989, and the existing single-family dwelling unit is currently served by an OWTS. The additional structure will not be permitted to connect to the primary septic system unless an **Advance Treatment Unit** is put in place for the additional structure. Please contact EHS.
4. A Guest House is considered accessory dwelling units per the short County of San Bernardino Development Code §84.28 for Short-Term Rentals.



N. Junior Accessory Dwelling Unit Requirements

Recent legislation allows a JADU to be constructed within the walls of the proposed or existing single-family residence including the attached garage. This eliminates the need for an existing bedroom or an interior entry into the single-family residence and makes it exempt from 2022 CPC Table H 201.1(1). The maximum square footage of the Junior ADU shall not exceed 500 square feet per Gov. Code § 65852.22.

Gov. Code § 65852.22: “Junior accessory dwelling unit” means a unit that is no more than 500 square feet in size and contained entirely within a single-family residence. A junior accessory dwelling unit may include separate bathroom facilities or may share bathroom facilities with the existing structure.

O. How to Size your Leach Lines, infiltrators, or Seepage Pits:

Trench Credit- How much area per linear foot of leach line is 'credited' line W x D: Credit
3 feet x 3: 7 ft ²
3 feet x 2: 5 ft ²
3 feet x 1: 3 ft ²

The minimum separation between multiple leach lines
3 feet x 3 feet: 8 feet
3 feet x 2 feet: 6 feet
3 feet x 1 feet: 4 feet

1. Absorption Area (A) is needed:

$$A = \text{Tank Size} \times \text{Design Rate}$$

(Square Feet) (Gallons) (Square feet per 100 Gallons)

2. For Leach Lines:

$$\text{Total Trench Length} = A \div (\text{Trench Credit})$$

3. For Infiltrators:

$$\text{Total Infiltrators Length} = (A \div 0.7) \div 3$$

4. Seepage Pit Depth:

$$\text{Total Seepage Pit Depth below inlet} = \frac{A}{\text{Pit Diameter}/3.14}$$

5. Holding Tanks:

Holding tanks shall be reviewed and approved by EHS and permitted by Building and Safety.



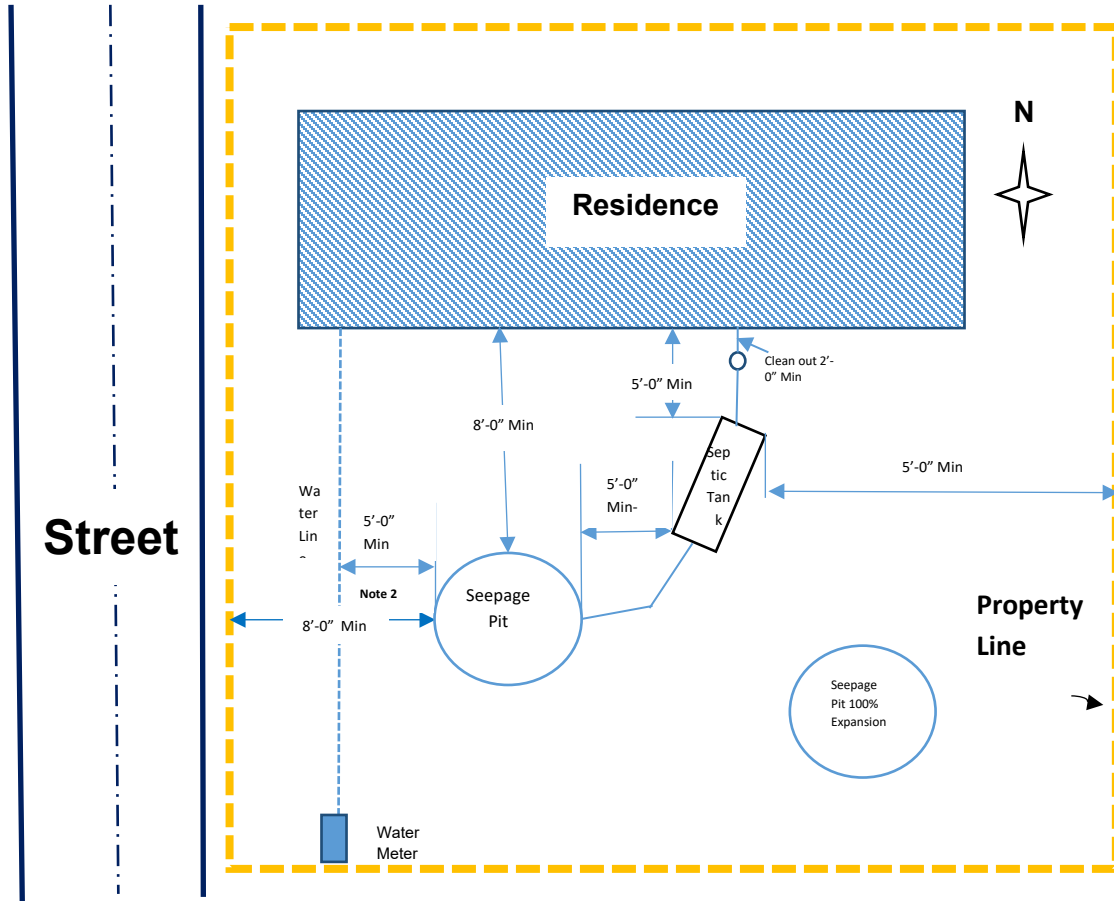
LAND USE SERVICES
Building and Safety Division
INFORMATION BULLETIN
 Number: IB-00018

P. The minimum requirement (in feet) for new and existing sewage disposal structures are as follows:

Minimum Setback Required From:	Septic Tank	Disposal Field	Seepage Pit
Non-Public Water Supply Well ^{1,8}	100	100 ²	150 ²
Public Water Supply Well ¹	100	150 ²	200 ¹²
Buildings or Structures ³	5	8	8
Property line adjoining private property	5	5	8
Streams and other flowing bodies of water ^{9,11}	100	100	150
Drainage Course	50	50	50
Lakes, ponds, and other surface water bodies ^{10,11}	200	200	200
Colorado River/ Mojave River	50	200	200
Large Trees ⁴	10	-	10
Seepage pits	5	5	12
Disposal Field	5	4 ⁶	5
Private domestic water lines (building service line)	5	5	5
Public Domestic Water Lines	25	25	25
Distribution Box	n/a	5	5
Ground surface on sloping ground	n/a	15	15
Groundwater ⁵	5	5 ⁷	10
Residential Infiltration basins	10	10	10

Note:

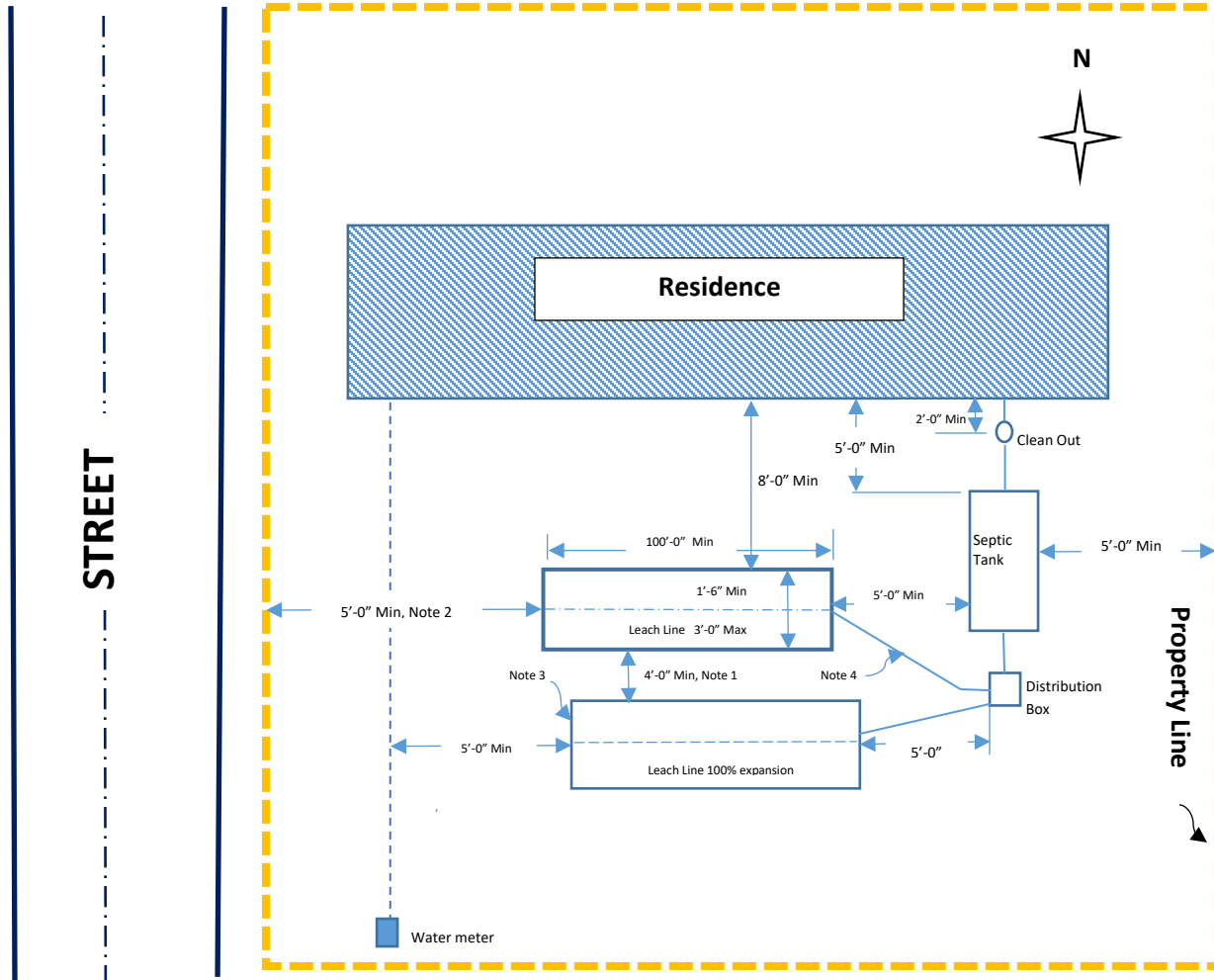
1. Drainage piping will clear domestic water supply wells by not less than 50 feet. This distance will be permitted to be reduced to not less than 25 feet where the drainage piping is constructed of material approved for use within a building.
2. For any system discharging 5,000 GPD, or more, the required setback will be increased to 200 feet.
3. Includes porches and steps whether covered or uncovered, breezeways, roofed Porte-cochere, roofed patios, carports, covered walls, covered driveways, and similar structures or appurtenances.
4. Trees with a trunk diameter of one foot or more that are within 5 feet of the system will not be removed during construction.
5. The highest level to which groundwater is known to have occurred rather than the level at the time when testing occurred.
6. Add 2 feet for each additional foot or depth in excess of 1 foot below the bottom of the drain line.
7. For any system utilizing advanced treatment, this minimum separation may be reduced to 2 feet with approval under the Advanced Protection Management Program and the Regional Water Quality Board.
8. Unless Regulatory or legitimate data requirements necessitate that monitoring, wells be located closer.
9. Where the edge of the water body is the natural or levied bank for creeks and rivers or maybe less where site conditions prevent mitigation of wastewater to the water body.
10. Where the edge of the water body is the high-water mark for lakes and reservoirs, and the mean high tide line for tidal influence water bodies.
11. Where the effluent dispersal system is located more than 1,200 feet from a public water system's surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the impact point (such as upstream of the intake point for the flowing water bodies), the dispersal system will be no less than 400 feet from the high-water mark of the reservoir, lake or flowing water body. Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from public water systems' surface water intake point, the dispersal system will be no less than 200 feet from the high-water mark of the reservoir, lake, or flowing water body.
12. Dispersal systems that exceed 20 feet in depth and are located within 600 feet of a municipal well will be required to have the consultant evaluate the two-year travel time for microbial contaminants to determine the required setback. In no case will the setback be less than 200 feet.
13. Dispersal systems that exceed 20 feet in depth and are located within 600 feet of a municipal well will be required to have the consultant evaluate the two-year travel time for microbial contaminants to determine the required setback. In no case will the setback be less than 200 feet.



Sample Plot Plan-Seepage Pit

Note:

1. Add two (2) feet to this dimension for each additional foot of gravel below the twelve (12) inch gravel bed in trench.
2. Where no water main exists, the leach line or seepage pit may be located a minimum of five (5) feet from side property lines.
3. The lines from the distribution box to the leach lines area shall be watertight lines.
4. Seepage pits are typically deeper than 3 feet but no more than 30 feet in depth due to construction complexities. If the system needs more than 30 feet in pit depth, the required depth shall be equally divided between 2 or more seepage pits.
5. The minimum separation between multiple seepage pits is 12 feet.
6. No series, "daisy chain" connection to existing or new seepage pits will be permitted.
7. The use of seepage pits in the mountain areas is prohibited under Section 33.0893 of the County Code.



Sample Plot Plan-Leach Lines

Note:

1. Add two (2) feet to this dimension for each additional foot of gravel below the twelve (12) inch gravel bed in trench.
2. Where no water mains exist, the leach line or seepage pit may be located a minimum of five (5) feet from side property lines.
3. Leach lines must contain at least one hundred and fifty (150) square feet of trench bottom. There must be sufficient yard space to increase the leach line area for the one hundred (100) percent expansion.
4. These lines from the distribution box to the leach line area shall be watertight lines.
5. Leach lines cannot exceed 100 feet in length, if the system requires more than 100 feet of trench, split the length as evenly as possible between 2 or more leach line area. For example, a system that needs 240 feet of trench shall design the leach lines for 3 leach lines at 80 feet each.