

Ventilated Outhouse

A "user-friendly" outhouse to reduce smell and flies consists of:

1. A reinforced concrete slab as the roof of the pit and floor of the house with holes for the seat and the chimney.
2. A foundation ring that raises, supports, and seals the slab to keep out surface water.
3. A pit inside the foundation ring of variable shape, size, and depth according to projected use and duration. It may need honeycomb brick or block walls to keep loose soil from caving in. The floor can be sloped away from the seat opening to help spread the stool.

A "dry" pit with a urine separator seat can greatly increase the life of the pit, as the stool composts in about 6 months and can be used for fertilizer to recycle the pit.

4. A house is built over the North half of the slab in a spiral shape in order to trap the prevailing winds to force them down the seat and back out the chimney to control flies and smell. Local materials are used for the building: adobe, brick, block, wood, etc. The roof can be galvanized sheet metal with an overhang for shade and protection from rain.

The floor can be dirt mixed with cement and gravel for sanitation.

5. A 6 inch diameter by 8 foot chimney is sealed into the slab as close as possible to the center for improved ventilation. It is fastened to the South side of the building and extends at least 20 inches over the roof. It is painted a dull black for better heating by the sun in order to draw air from the pit. It may be galvanized sheet metal, asbestos, or a sun-resistant plastic.

A screen wire mesh over the top keeps flies from getting in or out of the pit. A sheet metal or fiber glass cap keeps out the rain so that a "dry" pit does not become a "wet" pit.

6. Seat options:

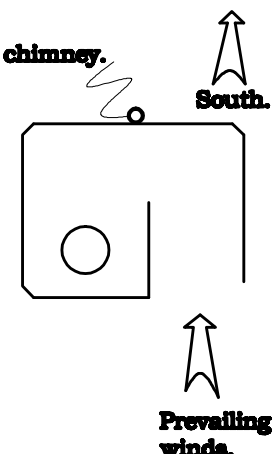
a. The seat may be built of fiberglass with a tight lid and a urine separator for a dry pit, which composts the stool. The urine is taken by a hose to a separate sand absorption pit about 10 feet from the outhouse.

b. The seat may be built with brick or block over the hole to the pit. If so, it should be plastered inside and out to prevent the stool from sticking. A snug lid will be needed to keep out flies.

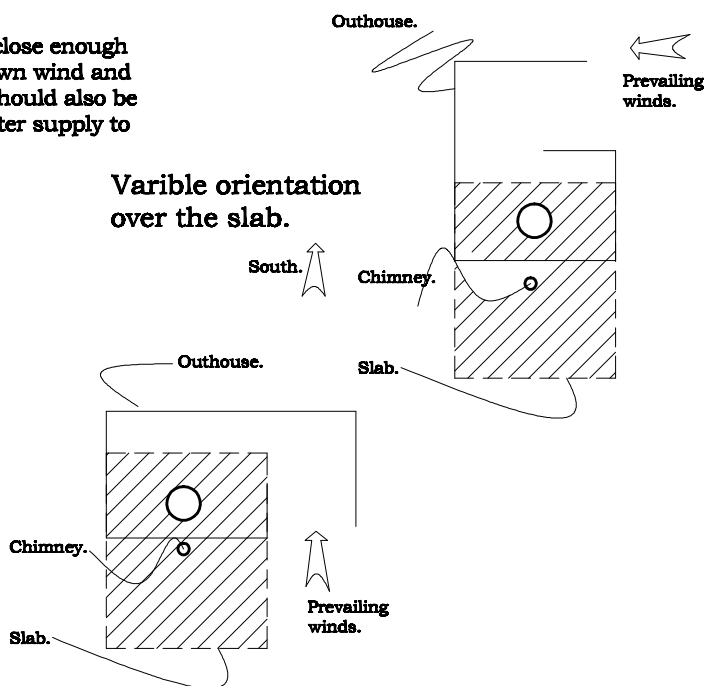
c. A water flush seat may be used and sealed to the floor.

7. Keep in mind that it should be close enough to the dwelling to be useful, but down wind and down hill enough to not smell. It should also be a good distance away from any water supply to avoid contamination.

4. Spiral shaped outhouse.

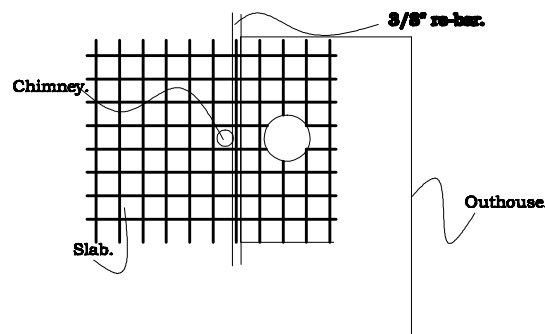


Variable orientation over the slab.



1. Slab:

The slab is poured concrete, reinforced with either:
 1-.3/8" re-bar joined to make a mesh with 6" spaces, or
 2-.Pre-welded mesh 3/16" either 4" or 6" spaces cut to size.
 If mesh is used, two 3/8" re-bar should be wired between the stool and the chimney for added strength where the back wall will cross the slab.



Openings are cut into the mesh for the ventilation chimney and for the stool.

The slab can be poured on level ground near the pit to facilitate moving. Four inch sheet metal channel can be used for the forms with short pieces of re-bar as retaining stakes to hold the shape. The mesh is elevated to the middle of the space. A short piece of chimney is placed in the small hole, and a 5 gallon bucket is placed in the stool hole to maintain the space in the slab.

1 1/2 sacks of cement with 1 1/2 - 2 sacks of gravel and 4 sacks of sand and sufficient water make the mixture. The mixture is poured and shaken to be sure it flows and fills under the mesh. Keep the slab surface moist and let it dry for at least 3 days before moving to avoid breaking it.

The metal forms can be used as skids to slide the slab onto the collar over the pit. Put a cement seal on the collar before seating the slab. Put a cement and rock collar about 20 in. around the slab for runoff.

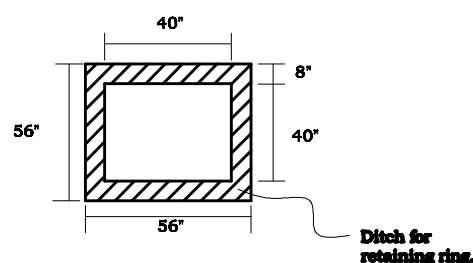
The slab should fit the outside edge of the foundation ring. The pit and ring may be larger, but the slab will weigh and cost more.

2. Collar / retaining wall two options:

a. After selecting the site of the latrine, dig a trench 20" deep and 8" wide where the slab will rest.

Mix the soil removed with 3/4 sack of cement, some gravel, and water to refill the ditch. It should extend 4" above the ground level. Smooth and level the top to seat the slab. Let it cure at least a day (depending on the temperature and moisture) before digging the pit inside the collar.

b. After the pit is dug, make a collar around the rim to set block or brick on to extend 4" above the ground level to set the slab on.



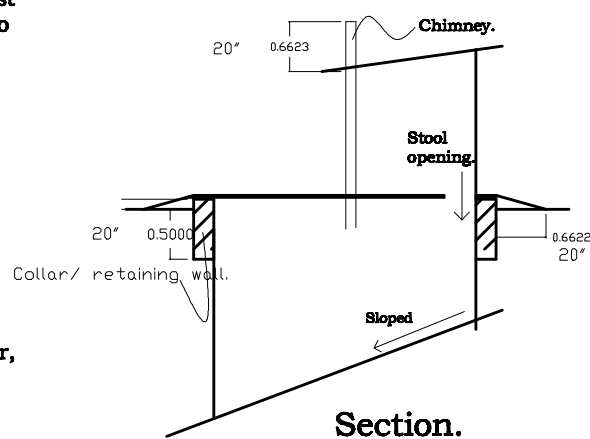
3. Pit:

Dig inside the retaining ring to the depth desired according to desired useful life of pit.

Wet pit:

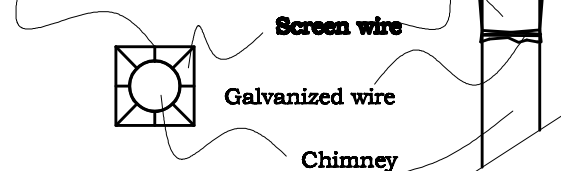
- 4 years- 6 ft. (1.8 meters)
- 8 years- 12 ft. (3.8 meters)

A dry pit with a urine separator lasts longer with the same depth.



5. Chimney fly screen.

Screen wire 12" X 12"



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| | VENTILATED OUTHOUSE |
| | ADAPTED FROM "VILLAGE TECHNOLOGY HANDBOOK" PUBLISHED BY "VITA" |
| | MANOS HERMANAS A.C. |
| | COLABORATORS: ARQ. JOSUE LEDERZMA HUGO MEDEROS |
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