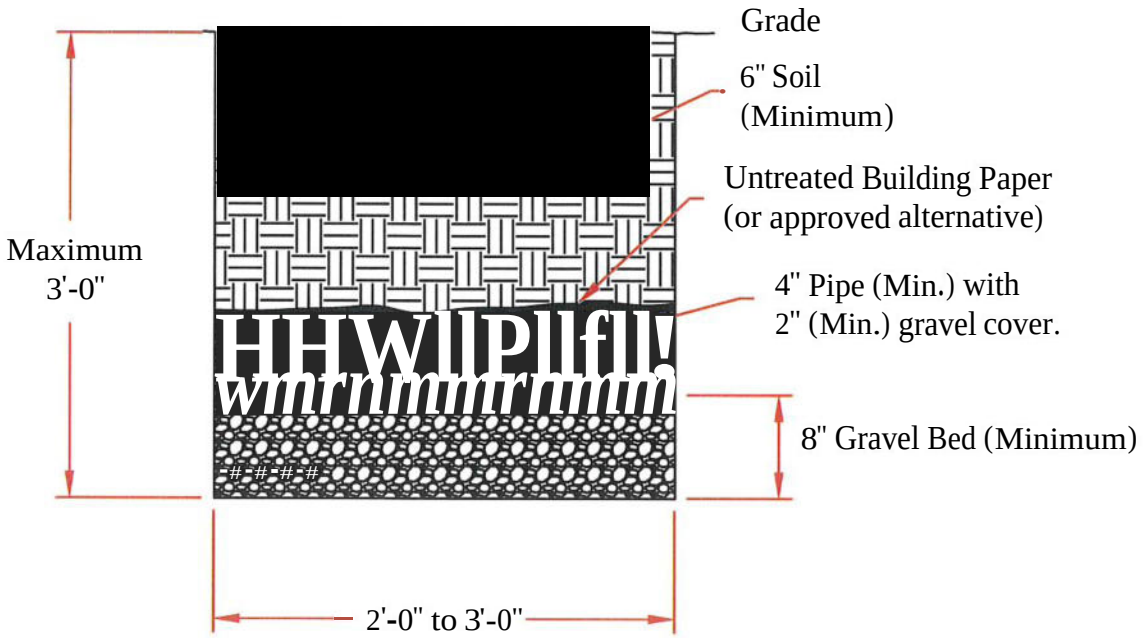
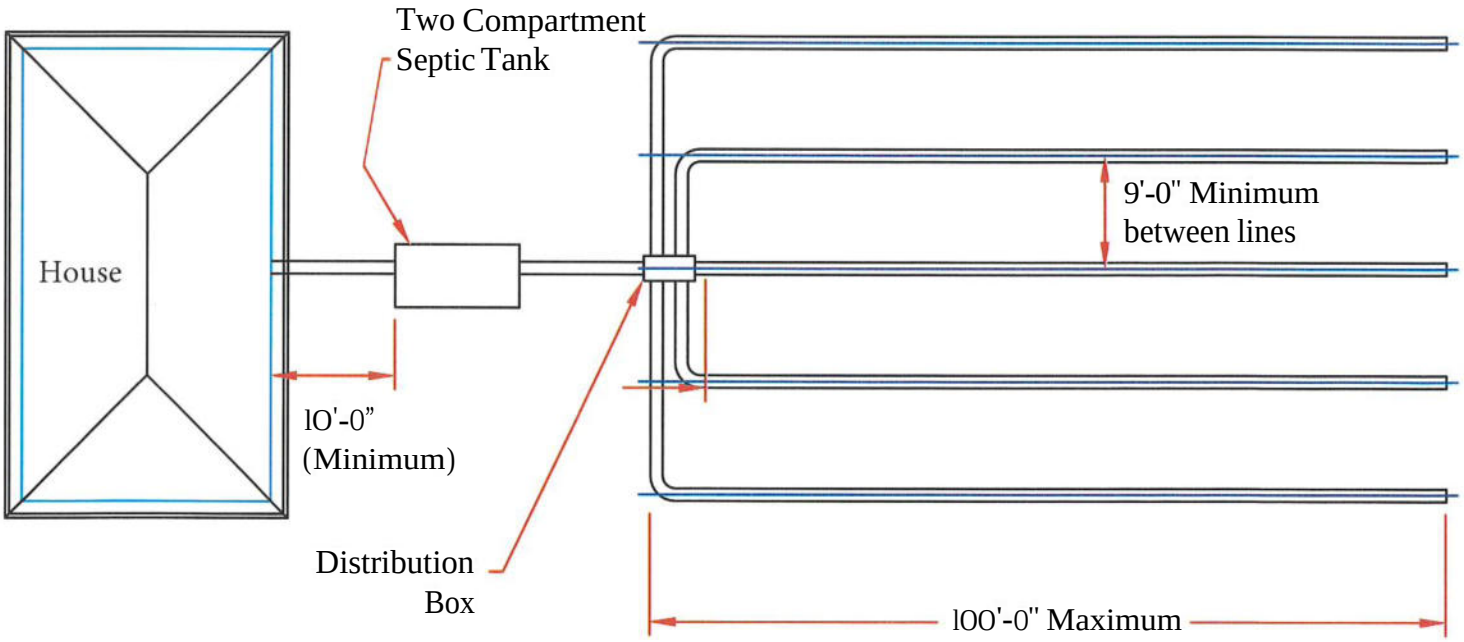
LATERAL DRAIN FIELD





**NOTE: Schedule 40 plastic pipe shall be used extending across excavated or unstable ground to at least 2'-0" on undisturbed earth caused by excavation.

Muscatine County Building, Zoning, & Environmental Office requires a 24 hour notice before an inspection is made of this system.

Office Hours: Monday-Friday 7:30 a.m. - 4 p.m. Closed Holidays

Please call 563.263.0482 or email zoning@muscatinecountyiowa.gov if you have any questions or to schedule an inspection.

Construction Details:

a. **Depth**: Lateral trenches shall not exceed 36" in depth. Not less than 6" of porous soil shall be provided over the laterals. Minimum separation between trench bottom and ground water or rock formation shall be 36"
b. **Width**: Lateral trenches shall be a minimum of 24" and a maximum of 36" in width at the bottom of the trench
c. **Gravel**: A minimum of 8" of clean washed gravel shall be laid below the distribution pipe, and enough gravel shall be used to cover the pipe. This gravel shall be of such a size that will pass through a 2 ½" screen 100% and will be retained 100% on a ¾" screen. When using clean, washed concrete stone, the size shall fall between 1" and 2 ½" in size.
d. **Grade**: A maximum grade of 6" per 100' of run shall be given to the distribution pipe.
e. **Pipe**: Distribution pipe shall be not less than 4" inside diameter and for open joint clay tile systems, not more than 12" in length. The tile should be laid with ¼" open joints with strips of tar or asphalt treated paper approx. 4" wide should cover the top half of each joint. Perforated distribution tile, PVC pipe, or other suitable material may also be used in lieu of open-joint tile lines. Perforations shall be at least ½" and not more than ¾" in diameter and spaced to provide at least the equivalent total opening of comparable diameter foot-long clay tile laid with ¼" open joints.
f. **Joint Cover**: All open joints in the distribution pipe which would permit entry of material into the pipe, shall be covered with tarred felt paper.
g. **Gravel Cover**: Unbacked, rolled, 3 ½" thick fiberglass insulation, untreated building paper, synthetic drainage fabric, or other approved material shall be laid as to separate the gravel from the porous backfill.
h. **Lateral Lines**: No single lateral line shall exceed 100' in length. There shall be a minimum of 9' center to center between any parts of the lateral lines.
i. **Compaction**: The use of heavy equipment shall be minimal on the area proposed for soil absorption. In addition, it is prohibited to use heavy equipment on the bottom of the absorption area.

Distribution Box:

a. **Design**: When a distribution box is used, it shall be of proper design and installed with separate watertight headers leading from the distribution box to each lateral.
b. **Outlets**: The distribution box shall have outlets at the same level, at least 4" above the bottom of the box to provide a minimum of 4" of water retention in the box.
c. **Baffles**: There shall be a Tee or baffle at the inlet to break the flow.
d. **Unused Outlets**: All unused outlet holes in the box shall be securely closed.
e. **Interior Coating**: All distribution boxes shall be constructed of corrosion resistant materials, or if constructed of concrete, shall be give a minimum of (1) coat of bituminous type coating.
f. **Outlet Levels**: All outlets of the distribution box shall be made level. Box integrated "turn type" or a small dam of bituminous or similar material in each outlet of the box will facilitate the leveling of these outlets.
g. **Equal Length Required**: The soil absorption area serviced by each outlet of the distribution box shall be equal.
h. **Effluent Discharge**: Each distribution box shall discharge into a subsurface absorption field or other approved secondary treatment system.