IMPORTANT FACTORS TO CONSIDER WHEN INSTALLING AND MAINTAINING SEPTIC TANK DRAINFIELD SYSTEMS

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SURFACE DRAINAGE AND USE OF THE DRAINFIELD AREA: Surface and roof water should be directed away from the drainfield, and the finished grade should promote good surface drainage without ponding of water near the drainfield. Cut and fill of the drainfield or the natural soil within 25' of the drainfield should be avoided. Drainfields should not be used for parking automobiles or other secondary uses which would cause compaction. Trucks, tractors, and other heavy equipment should not be driven across drainfields or septic tanks. Drainfields should be graded and seeded to an appropriate lawn grass and maintained as a lawn area. Consult your local Extension Service office for seed and fertilizer recommendations.

WATER TREATMENT EQUIPMENT: The back flush from home water treatment systems and swimming pools should not be discharged into a sewer system leading to a septic tank drainfield. The drainfield design does not include allowances for this type of discharge. Most treatment units use salt. Sodium causes clays to disperse and soil structure to break down. Soil structure is essential for good percolation in clayey soils and failure of drainfield systems will result from sodium rich back flush waters being placed in drainfield systems. The back flush water from the home water treatment systems and swimming pool filters should be discharged on the surface at a point well away from the house and any part of the septic tank drainfield system. It is important that water from treatment units does not flow over any part of a drainfield system including the septic tanks, distribution lines or drainfield trenches.

JACUZZI (jetted tubs): MSCI recommends that those homes which utilize indoor hot tubs or Jacuzzi tubs (large jetted bathtubs) provide a separate absorption system or dedicated septic tank for the disposal of this effluent. The sudden release of 40 to 100 gallons of water into the primary septic tank will cause suspension of sediments within the tank. Solids suspended in the effluent will subsequently flow into the drainfield system and can lead to premature failure of the system. A separate plumbing outlet is required.

GARBAGE DISPOSER: If the homeowner desires the installation of a garbage disposer, the kitchen plumbing should be plumbed to a separate outlet and a 1250 or 1500 gallon septic tank/grease trap installed to receive only kitchen effluent. Effluent from this tank can flow to the primary drainfield or to a separate drainfield. This grease trap should be pumped to remove grease and solids once every two years. We do not recommend that kitchen garbage disposer units be installed with conventional septic tank drainfield systems which do not have dedicated septic tanks (grease traps) or effluent filters.

TREES, SHRUBS, GARDENS AND THE DRAINFIELD: Trees and plants such as weeping willow, maple, locust, sycamore, cottonwood, tree of heaven and bamboo should be removed if within 50 feet of drainfield lines, septic tanks, or distribution boxes. The roots of these trees have an affinity for water and will enter distribution lines, distribution boxes and drainfield trenches. These roots frequently cause clogging of distribution lines and failure of the drainfield system. We do not recommend that these species be utilized as landscape vegetation in the vicinity of the drainfield system because of this problem. They should not be planted within 50' of any part of the drainfield and should not be used as landscape materials near adjacent drainfield systems. We do not recommend that any vegetable garden practices be conducted in the vicinity of a drainfield. Common sense dictates that the production of home gardens and sewage disposal are not compatible practices.

BURIED UTILITIES AND DRAINFIELD PROBLEMS: It is the responsibility of the builder, developer, utility contractor, sub-contractor, realtor, and the homeowner to be sure that cable routes for buried utilities (e.g., electric, natural gas, water, telephone, cable tv) do not cross the drainfield/reserve drainfield. Trenches for buried cables and other utilities frequently cause drainfield failure by providing an avenue for lateral movement of effluent. Contractors and sub-contractors must be made aware of the problems and held responsible for staying clear of designated drainfield zones. Detailed site plans are recommended for their use.

MULCH: We do not recommend the use of bark, sawdust or plastic sheeting mulch on drainfield sites. Septic tank drainfield systems are designed to percolate water into the soil system and evapotranspiration is a principal part of the removal of water from that system. Mulches are designed to prevent evaporation and hold water in the soil system. The use of mulch over drainfields often contributes to premature failure of the system.

SPRAY IRRIGATION SYSTEMS: Spray irrigation systems should not be installed over or near the drainfield and reserve drainfield site. Septic tank drainfield systems are designed for percolation of water into the soil system. Those designs take into consideration annual rainfall but do not allow for irrigation. Spray irrigation systems may lead to failure of the drainfield system because of additional water being placed in the drainfield area and the improper design and installation of piping systems.

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PRINCIPLES OF GOOD DRAINFIELD MAINTENANCE

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1. **DO use water saving fixtures - use sensible water conservation practices.**
2. **DO use the washing machine sparingly on a daily basis. Wash one (1) or two (2) loads daily rather than saving for a wash day.**
3. **DO maintain faucets and other fixtures on a regular basis, so that leaking does not occur when not in use.**
4. **DO have septic tanks, boxes, and the drainfield system evaluated regularly; pump and clean all tanks and distribution boxes once every three (3) to (5) five years.**
5. **DO pump grease traps for garbage disposer every one (1) to two (2) years.**
6. **DO add additional tanks or effluent filter if you install a garbage disposer or jetted tub.**
7. **DO keep a record of the septic tank(s), distribution box(es), and drainfield design layout and of the pumping schedule.**
8. **DO consult your local health department or consultant before installing structures, home additions, swimming pools, decks, patios, parking, or other soil disturbing practices.**
9. **DO consider preventative design practices. The installation of multiple tanks in series is a good practice which will insure longer drainfield life. This practice is very cost effective when the expense and inconvenience of repairs is considered.**

1. **DON'T use excessive amounts of water in short periods of time.**
2. **DON'T dump grease or coffee grounds down the drain or dispose of household and automotive chemicals, insecticides, herbicides or petroleum products in a drainfield system. Septic tank systems are not designed to decompose these materials.**
3. **DON'T dispose of sanitary napkins, disposable diapers, plastics or synthetic rubber products.**
4. **DON'T use excessive amounts of drain cleaner, plumber's helper, yeast, bacteria, enzymes, etc. These materials <u>are not good</u> for the septic tank system and are normally a waste of money.**
5. **DON'T place bark, sawdust, or plastic mulch over drainfield systems.**
6. **DON'T place lawn irrigation systems on or contiguous to septic tank drainfields.**
7. **DON'T plant maple, weeping willow, sycamore, cottonwood, locust or bamboo in or near a drainfield.**
8. **DON'T use the drainfield area for growing a vegetable garden.**
9. **DON'T park, place structures, cut and fill, or otherwise abuse the drainfield or the reserve drainfield or any area within 25' of the drainfield.**
10. **DON'T destroy old drainfields after a repair. They will become serviceable after five (5) to eight (8) years.**
11. **DON'T discharge back flush water from water treatment equipment or swimming pools into a septic system. Sodium from this process causes soils to lose structure which is essential to good percolation. Failure of the system will result from improper discharge from these systems.**

<u>DO NOT FLUSH</u>

CAT LITTER	**PESTICIDES**
CIGARETTE BUTTS	**PHOTOGRAPHIC SUPPLIES**
COFFEE GROUNDS	**SANITARY NAPKINS**
CONDOMS	**TAMPONS**
DISPOSABLE DIAPERS	**THINNERS**
FAT, GREASE OR OIL	**VARNISHES**
PAINTS	**WASTE OILS**
PAPER TOWELS	

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