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## **COMPARING ALTERNATIVES**

American Manufacturing Company Inc.'s Perc-Rite® Drip dispersal system is the first proprietary alternative system approved in Virginia (1993). American Manufacturing has been involved for over 15 years with what was then new technology in Virginia and the Mid Atlantic States. Perc-Rite®'s characteristic low volume, time dosed, with equal distribution of effluent dispersed over the entire soil adsorption area is still the most efficient and safe way to enable the entrance of water into soil and manage of the area. The system lends itself to shallow installation, maximizing aeration and separation to soil and site limitations. Experience shows that drip disposal has Significant application in currently suitable soils and also where site and soil conditions are likely to be unsuitable for more conventional subsurface wastewater treatment and disposal systems.



## THE PERC-RITE ® ALTERNATIVE

The Micro-Mound<sup>™</sup> offers a basal area loading rate comparable to proprietary advanced secondary "pad" configurations and is applicable on slopes to 25%, seasonal water tables to 9", and restrictions to 12". The Micro-Mound<sup>™</sup> site evaluation and system design is based on established site evaluation and methodology and further enhancements including low profile (20" with secondary pretreatment), increased orifice density, minimum dose equal distribution, 115 micron disc filtration, and average and peak flow control.

The conventional Wisconsin elevated sand mound has been in the State of Virginia Sewage Handling and Disposal Regulations since 1982. Utilizing the guidance from the most recent Wisconsin Mound Soil Adsorption System: Siting, Design, and Construction Manual by James C. Converse and E. Jerry Tyler and numerous other current sources, the engineers and soil scientists at American Manufacturing developed the Micro-Mound<sup>™</sup> site evaluation and system design methodology in the late 1990's.

With the Micro-Mound<sup>™</sup> Designer's Guide System (plus spreadsheet calc tools and design details), design is simple and accomplished through the use of charts with little if any mathematic computation required. The Design Worksheet is suitable for an A.O.S.E. preliminary design submission.

## BEST ALTERNATIVE FOR MOST SITE LIMITATIONS

The patented Perc-Rite® processes proves the ability of drip dispersal technology to manage single family, commercial and large flow projects with challenging site conditions. The system features totally automatic control. Perc-Rite® is suitable for application with all treatment offering the lowest risk and best solution for all onsite dispersal needs. Perc-Rite® Drip Dispersal

Systems are the most appropriate technology for;

- 1. SMALL FOOTPRINTS Whether utilizing an up to 50% reduction from conventional trench system area with septic tank effluent, further reduced advanced secondary area loading rates, or the minimum "Micro Mound" basal area loading rates, Perc-Rite® drip dispersal systems offer a superior, sustainable onsite system to address those needs. Footprint reductions from LPD areas are frequently achievable.
- 2. SHALLOW LIMITATIONS Perc-Rite®'s shallow placement, 6"-12" from the surface, maximizes the depth to limitations such as rock, restriction and seasonal high water table. There is no minimum installation depth requirement in Virginia.
- 3. IRREGULAR SHAPED SITES Equal distribution is a Perc-Rite® characteristic and with our design standards and pressure compensating emitters, a variety of site configurations can be accommodated. Several suitable areas of varying sizes may be utilized maintaining the same gallons per linear foot loading rate in all areas. Absorption areas **do not have to be exact squares or rectangles**. Soil and landscape suitability may be maximized without the design constraints of conventional trench systems. As a **shallow or ultra shallow** placed gravel-less system with minimum or no excavation or site disturbance, drip dispersal can be sited and installed within **treed sites**.
- 4. SLOWLY PERMEABLE SOILS The Perc Rite® technology's characteristic low volume, time dosed, equal distribution of effluent dispersed over an entire soil adsorption area is particularly applicable to slowly permeable soils. The equipment provides for zone specific controlled dosing to minimize risk of surfacing from the instantaneous dose, which is the most sensitive process in drip dispersal.
- 5. SLOPING SITES Drip Dispersal has a great advantage over other soil based dispersal systems, as the absorption field installation does not require conventional trench type excavation. As a *shallow or ultra shallow* placed system installations on steeply sloping sites of 15 -60% + are easily accommodated. Redistribution of effluent to the lower portions of the system by gravity at pump cut off is eliminated by the utilization of Top FeedTM Manifolds. Installation minimum depths do not increase with slope.

## REDUCE YOUR RISK AS AN "AOSE" DEALING WITH SITE LIMITATIONS

Many approved proprietary systems promote small square shallow placed installations which would not meet most generally accepted engineering practices such as presented in the Wisconsin Sand Mound criteria. American Manufacturing's Perc Rite® Drip Dispersal System utilizes the simplest design methodology based on sound, easy to understand engineering criteria. With the "*Designer's Guide*" and "Calc Tool" system design is simple and accomplished through the use of charts with little, if any mathematic computation required. The designer's guide provides the information to determine the maximum field size, maximum length of supply and return lines and maximum static lift for an individual hydraulic unit and standard pump package for a given site.

