A green by any name...

By Bob Spiwak

A Washington sewage design and construction company, together with a couple who run a bed and breakfast, have combined engineering know-how and innovative hospitality into a new dimension in land use.

Call it a "B&B pitch and putt."

Guests at Brown's Farm, a hostelry run by Jeff and Alicia Brown in Mazama, Wash., will find a putter and bucket of golf balls in each housing unit.

Outdoors, the visitors will be able to use balls and putter on a special golf green. Built with the same care and similar substrata as a USGA putting green, the green lies atop a "sewage mound" — a system found where normal drain fields cannot be utilized.

When the Ice Age retreated from the valley 8,000 years ago, it left a hardscrabble layer of thin topsoil in most places. Beneath this highly permeable surface was a giant aquifer.

Now, as more people have moved into the area, the natural topography has made ground-water contamination a problem. Traditional drain fields, where sewage is run from the residence into pipes buried in the earth, are no longer acceptable.

Engineers have devised a system whereby, at its simplest, sewage is delivered to an elevated earthen mound — or sewage mound — that replaces the deeper topsoils of other areas.

From the residence, the wastes go to a 1,000-gallon septic tank. Here, the solids are deposited by gravity.

The liquids move on to a second 1,000-gallon tank at least four feet above the surrounding terrain.

Beginning with a layer of rough cobble that performs the same function as the herringbone perforated pipe at the bottom of a USGA green, layers of gravel build up the substructure of the mound.

Jeff Brown and son Jacob, above, watch a bulldozer operator spread sand on Brown's Farm's golf course green/sewage mound. Right, an employee of R.A. Monetta rakes the edges of the new green in preparation for its seeding.

The pipes rest on a gravel bed, perfectly level, and are covered with filter cloth, then a top layer of several feet of sand. The liquid wastes are propelled into the laterals and released into the sand and gravel through the holes in the pipe, to filter naturally through the ground.

When the Browns decided they wanted more than an obtrusive mound on their property, they consulted Bob Monetta, of R.A. Monetta, a sewage design and construction firm in Winthrop.

Among them, they decided to build a putting green that would tie into the mound. The mound was 70 feet long and eight feet across on top and shaped in a shallow arc.

Monetta has long thought of incorporating tennis courts into mounds. The Browns, who are avid golfers, decided on the green, with a 120-yard "fairway."

Due to the subsoil permeability and a limited budget, they decided there was no need for the prescribed herringbone perf-pipe at the base.

A burrow dug adjacent to the site for the mound's rough material also provided base material for the green.

The outline of the green was staked, and the same cobble as that in the mound was laid for the putting surface.

Atop this, 15 yards of pea gravel were trucked in and spread over the surface of the larger rock. Sandy Tager, who had built several other area home greens, operated the bulldozer.

Next, 10 inches of sand were spread over the gravel, then compacted according to a rough grade of the green profile and shape of the putting surface.

At this point, the early snows of the North Cascades began falling, leaving time only to finish grade the burrow pit into a lake, and cut two bunkers to guard the green.

The putting surface will comprise about 2,500 square feet of the 4,000-square-foot mound/green complex.

Winter snows in this area average three to five feet, and the Browns and Monetta decided to let the weight of the snow and subsequent spring runoff compact the surface before final grading next spring.

Penncross bentgrass will be used on the putting surface, with a bluegrass-ryegrass-fescue mix for the rough and fairway.

The hole will play a maximum of 120 yards, and Brown plans to add an interim tee or two.

Integrating the mound system with the green should keep irrigation and fertilization to a minimum.

Traditional mounds, planted with alfalfa and other coarse grasses, have thrived as they are fed and watered by the liquid effluent.

If the Monetta-Brown brainstorm catches on elsewhere, sewage may become a blessing, not an abomination.

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