

Real-Life Solutions

GREENS RENOVATION

Subtle Approach Ensures Subtle Changes

Architect Tripp Davis
'massages' greens to
regain lost cupping areas

BY ANTHONY PIOPPi

Oklahoma-based golf course architect Tripp Davis was brought in by an upscale private course located in the metropolitan New York area to see what could be done to soften portions of two greens that had lost cupping areas because of increased green speeds. The club (which declined to allow its name to be used for this story) was looking for a way to regain those areas while foregoing entire greens renovations.

"Our approach is that you want to fly in under the radar screen and make changes in a way so subtle that you leave as little mark as you can," Davis says.

The two greens Davis

worked on average about 6,000 square feet. About 2,000 square feet was recontoured on one green, and another 3,000 square feet was affected on the other green. The project began in early October 2002 and was done in seven days.

"The best time to do it is in the fall," Davis says of the procedure, which he calls "massaging." "You're not going to want to play on the [reworked areas] again that year."

The first step of the procedure is to strip the sod from the designated area. The sod is then placed nearby in a shaded area and kept moist throughout the proceedings. Davis said it is imperative to lay the sod flat, grass side up, instead of keeping it rolled.

The purpose of re-using the sod is so the renovated section blends in with the unchanged portion. The turf of the New York layout was a bentgrass-*Poa annua* mix. Sodding or seeding with just bentgrass would have made the affected area stand out, creating an irregular putting surface that would also require different maintenance practices.

The soil from the section Davis worked on was taken out in two 4-inch lifts using a small backhoe. The material was saved in a protected area to keep it from becoming contaminated.

Davis said the first layer is



The sod is stripped away before the "massaging" procedure, but it's kept safe and re-used so the renovated section blends in with the unchanged portion upon the project's completion.

predominantly topdressing, while the second 4-inch section is the original greens mix, which in many cases will be native topsoil.

After the soil is removed, an additional 6 feet of sod is stripped from around the perimeter of the area being "massaged," allowing Davis to blend in the new contours.

With the New York project, drainage was added as well to the remodeled section. In these situations,

Davis said he had to be careful to install drainage in such a way as not to pull water from the new putting surface faster than the rest of green. Even though the original soil is re-used, it loses its compaction during removal and that causes its water-holding capacity to increase, meaning it no longer drains at the same rate.

At this job, 3-inch perforated drain lines were laid into an 8-inch trench. First, 2 inches of pea gravel was

put down, then the pipe. More pea gravel was added until there was a 2-inch layer of rock covering the pipe. The remaining part of the trench was filled with a mix of sand (50 percent), soil (40 percent) and peat (10 percent.)

In order to initially improve porosity, a 4-inch cone of the same 5-4-1 mix was added on top of the trench. "Pea gravel all the way would speed up drainage too much," Davis says.

Once completed, the original soil was replaced in two layers. Once that was complete, a light layer of nitrogen was spread to facilitate root growth, and the sod was put back.

The entire process took about three days per green. But even though the most intrusive work was completed in that short time, extra care was taken to ensure the turf was healthy.

Davis said a microscopic gap between the soil and the sod is replaced. If the quality of the irrigation water is not good — a high percentage of salts, for instance — a layer will build up in the gap and hinder root growth or cause roots to move laterally. Also, too much nitrogen can cause the roots to grow at such a rapid rate that they will once again move laterally instead of down into the soil, thus creating a thatch layer.

Light and frequent applications of topdressing, often as twice a week, were performed when the sod was knitted in enough to handle some wear. Depending on

the weather, the first aeration can occur later in the fall or in early spring, Davis says.

In a best-case scenario, the greens are playable in five to six months, depending on the weather. According to Davis, those wishing to take a chance performing the procedure in the spring could have the greens back in action in 60 days, but face the increased risk of losing turf.

So far Davis has massaged greens on three courses, including one of his own designs, Grand Elk Ranch and Club in Granby, Colo., that opened last fall. The technique was necessitated after a drain line collapsed. The problem was corrected before the course opened using the massaging method.

The majority of greens needing revamping, however, are on older courses and that fact points to a contradiction in what golfers will tolerate, Davis points out.

"There is a big difference between classic golf courses and new golf courses," he says. "If we built new greens with 3-percent slope that were rolling at 10, we'd get crucified. It would be a bad design. In the Northeast and other areas, they are pinning areas (on older courses) close to 5 percent with green speeds approaching 11."

If one day those clubs find the contours too severe, a massage may be just the cure. ■

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Problem

A popular New York course had lost cupping areas on two of its greens because of increased green speeds. The club wanted to regain those areas, but without an entire renovation on the greens.

Solution

"Massaging" the greens to soften them and regain lost cupping space. The process is a lot less intrusive than a full-scale renovation.