NGC's Experiences With Washed Sod

By Randy Smith

In 1993, Nakoma Golf Club was going to rebuild its number 12 green because it had experienced winterkill to some degree in 20 of the last 22 years. However, due to some unusual circumstances, it did not have any winter injury last spring when every other old green experienced significant ice damage.

In addition, our second green never did recover since it was under water stress for all but three days last season. It was determined by the board of directors that the second green would be the priority for rebuilding. No time was spent during the season on any temporary remedies, and the rebuilding began on September 24th, 1993.

NGC member and two time U.S. Open champion Andy North and his associate Roger Packard designed our new hole which included a USGA specification green with an elevation one foot above the old green. This would allow some room for drainage since the water table was only about 18 inches below the old surface. New contours, mounds, trees, and an approach redesign which necessitated a change in the pond and retaining wall were all part of the new design. North was very helpful and spent a lot of time helping carry out this "in house" project.

Due to some rather extensive master plan work at Nakoma in 1992/1993, the members were not willing to wait for another half season for a green to grow-in before being able to play it. This attitude led me to investigate to possibility to use washed sod to get the green into play as quickly as possible.

With the encouragement of Jake Renner and some excellent articles in the USGA Green Section Record, I proceeded with plans to sod the green.

I tried to outguess the weather in a most unusual season to plan for delivery of materials. We "locked in" our washed sod—PennLinks grown by Huber Sod Ranch—with a one-half down payment due with the order in June for future delivery.

We ordered 80/20 green construction mix from Waupaca Sand with a delivery date in early September. The coarse sand layer was delivered by a local company, which also supplied the pea gravel.

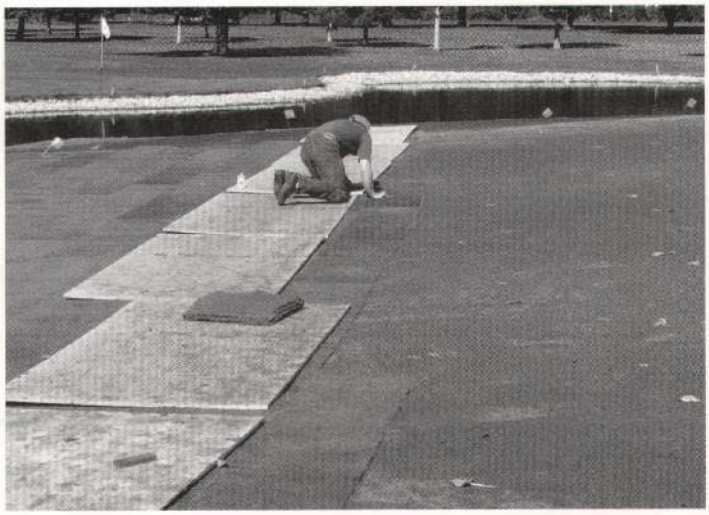
As the time approached, we made arrangements with the Bruce Company to haul materials to the work site with their flotation trucks. Without those big tires on those trucks, I doubt we'd have the material on site yet today.

Once the final golf outing of the season was over, we were able to begin. But as one photograph shows, we were under water with a window of about two weeks to get this project completed.

Our first two days were spent creating a road with fabric and rocks to just get equipment to the site. We used the next couple of days shortening the pond about 24 feet to allow an approach to the green that did not require a shot over water.

The OLD #2 Green at Nakoma — note the standing water!

Installing Drainage.



The Sod Process — plywood over the new sod never disturbing the prepared greens mix.

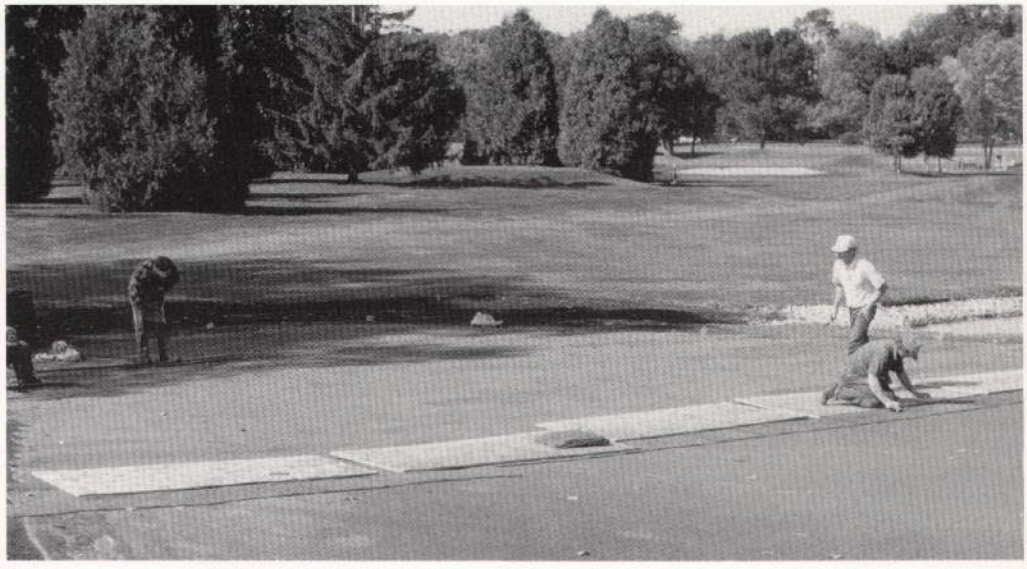
The remodeling done the previous year involved sites very similar to this one, so we had good experience on our side. The only difference, really, was the washed sod.

We were fortunate to have made arrangements to have the sod delivered in early October. Flooding at the Huber Sod Ranch later in the month caused problems in their procedures. The sod arrived on time and we were ready. We had seen samples of the sod and had inspected some greens completed with washed sod. I guess we did not realize how little the truck load would be, nor how light the sod was to handle. Everyone, including golf players, was fascinated with the product. More than a few people made the trip from the pro shop to the work site just to see how we were doing day by day.

Basically, six people plus myself moved and placed about 8500 square feet of sod in six and a half hours. The green size was 6500 square feet, but we included the collar and part of the approach.

Some of the specific procedures we used are:

1. We kept the mix watered down ahead of sodding.
2. We only moved on plywood or planks laid on the new sod, not on the mix.
3. We culled out questionable pieces of sod and used them later on the collar or approach.
4. We laid the sod perpendicular to the fairway and drainage contours.
5. Watering started immediately after the sod was down—we did not want to have any wilting.
6. Watering was also done from either plywood or planking.
7. We rolled the green ten days after sodding—the roots were between two and five inches.
8. The green was cut with a walking greensmower ten days after sodding, and the mower was set at 1/4 inches.
9. Three-fourths of a cubic yard of topdressing was applied at 10 days and 17 days after construction was done.
10. Winter topdressing of 1.5 cubic yards of material was put down on the green in mid-November. Snowmold fungicides were applied.
11. An excelsior mat was used to cover the green for the entire winter.
12. The green was uncovered by the third week of March and recovered when evening temperatures were to drop below 30 degrees F.
13. The first mowing was on April 4th at a height of 1/4 inches. Every mowing after that was at a height of 3/16 inches, done on a daily basis with a walking greensmower.



Careful alignment of the sod to lessen seams.

The first mowing.

A pallet of sod.

Fall Topdressing 6 weeks following construction.

The completed green.

14. The green was aerified on May 25th with ½ inch times. The holes were left open and a 2000 pound vibratory roller was used to help level some slight surface undulations.

15. Plans are to use quad tines throughout the summer to help get the air, water and nutrients down through the sod/thatch layer.

16. The fertility program to date has included minors and starter fertilizer worked into the mix prior to sodding and an additional one pound of N/M each month during the season.

One problem that occurred immediately following the sodding procedure was a weekend of high temperatures with very windy conditions. Just watering every couple of hours was not enough. In fact, the sod started to roll up in the wind. We found it necessary to set up a series of lawn sprinklers and continuously water lightly all day and turn them off at night

We continued to do this until sufficient rooting had taken place—about one week after sodding.

Another problem was the slight undulations that I previously mentioned. This caused us to scalp the high spots on every mowing. By using the vibratory roller on the newly aerified surface, we were able to "shift" the surface and level it.

At this point, I feel that the washed sod experience has been a successful one. A seeded green would not be playable for another couple of months. We would certainly use this procedure again, likely this fall when plans are for rebuilding another green.