

Sometimes Drainage Can Be Boring



To eliminate surface disruption, drain lines can be put in with horizontal boring equipment.

Not all putting greens were created equal. Some were built using exacting specifications to ensure excellent drainage and optimum turf performance, while others were built with heavy soils and consequently have problems. The most common problem with soil greens is poor drainage that jeopardizes the survival of the turf during periods of heavy rainfall.

For the small number of greens that drain poorly and are questionable candidates for complete reconstruction, specialized drainpipe can be installed by using horizontal boring technology. The clear advantage to using horizontal boring technology to install drainpipe underneath soil greens is that it involves absolutely no putting-surface disruption whatsoever.

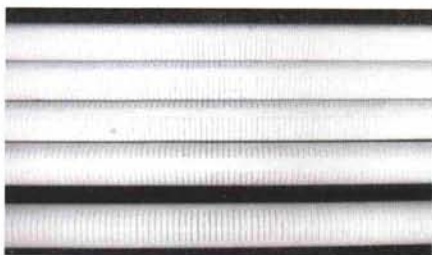
When faced with the challenge of greens that drain poorly, most superintendents would prefer to discuss complete reconstruction. Due to overriding circumstances, however, there are many cases where this option is not immediately available. For example, a green may have beloved architectural characteristics that the golfers fear will somehow be lost if it were reconstructed, or a green would otherwise be fine if it were not for stagnant water standing in the cup following a downpour.

For the small number of greens that drain poorly and are questionable candidates for complete reconstruction, specialized drainpipe can be installed by using horizontal boring technology. This technology has a wide range of applications and is somewhat familiar to many because it is used to install utilities under existing roadways. The clear advantage to using horizontal boring technology to install drainpipe underneath soil greens is that it involves absolutely no putting-surface disruption whatsoever.

Daniel Dinelli, superintendent of North Shore Country Club in Glenview, IL, was the first to take advantage of horizontal boring technology for installing putting green drainpipe. After losing membership approval to rebuild the older greens that had developed chronic drainage problems, he knew that he had to look elsewhere for a meaningful solution to his situation. If he could not improve the drainage characteristics of the old greens, it was certain that the turf would forever suffer during the summer months.

(continued on page 32)

The first option investigated by Dan was to dig trenches in the old greens and install standard perforated drainpipe. This option has gained great popularity across the country due in large part to the successes at many well-known courses. In fact, there are even several golf course construction contractors who have special expertise in this method of drainpipe installation and are capable of completing the work on putting greens with minimal scarring.



Special pipe used to drain excess water from greens.

With the looming prospect of digging trenches in the older greens, though, Dan turned his attention to the second option of using horizontal boring technology. The only unsettling aspects of this second option were that it would require working with a contractor with no golf course experience and adapting specialized pipe used to pump air up through soils contaminated with petroleum or other hazardous materials. Basically, the entire operation would require boring 2"-diameter circular passageways 18 inches below the surface of green #12 and then pulling the PVC pipe with small slits cut into the side walls back through the openings. The operation was deemed a success upon completion, with only a small hole dug approximately 20 feet in front of the green where the four PVC drainpipes could be connected to a mainline running off to the side of the fairway.

To maximize the efficiency of the specialized drainpipe, Dan also worked with David Potts, president of Soil Air Technology. By attaching a vacuum pump to the mainline, most of the excess moisture trapped in the heavy soil used to build green #12 can now be evacuated in one to two hours after a rainstorm. In essence, the vacuum has increased the saturated hydraulic conductivity reading for the green from 1.5 inches per hour to 3.5 inches per hour.

An additional possible benefit realized from the use of a vacuum on the mainline is that the CO₂ level in the soil can be lowered throughout the profile of the green. This finding may well prove to be relevant at some later date assuming that overall turf vigor is related to the concentration of various gases in the root zone. At the very least, the alter-

ation of the CO₂ level illustrates that the vacuum has an effect several feet outward from each of the drainpipes.

For additional information on the use of horizontal boring technology, the reader is referred to either Messieurs Dinelli or Potts. As of the writing of this turf tip, a patent for the process of installing the specialized pipe underneath a putting green for the sake of improving subsurface drainage was being pursued.



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the Bull Sheet

John Gurke, CGCS
Contributing Editor

DATES TO REMEMBER

- July 6-9 — Western Open at Cog Hill C.C., **Ken Lapp** host.
- July 17 — John Deere Team Championship at White Eagle Golf Club, **Gilberto Velazquez** host.
- July 18 — MAGCS monthly meeting at Redtail Golf Club, **Pat McDonagh** host.
- July 20-23 — U.S. Women's Open at Merit Club, **Oscar Miles, CGCS** host.
- August 3 — University of Illinois Field Day at the Landscape Horticulture Research Center and Hartley Selections Garden at Urbana, IL.
- August 22 — MAGCS monthly meeting at White Deer Run, **Joseph Meier** host.
- September 14-16 — 2000 LaSalle Bank Chicago Open at Beverly Country Club, **Les Rutan** host.
- September 18 — MAGCS monthly meeting at Stonewall Orchard Golf Club, **Larry Flament** host.
- October 10 — ITF Fall Golf Day at Gleneagles Country Club, **Keith Fuchs** host.

Congratulations to **Gregg Rosenthal, CGCS**, of Kemper Lakes Golf Club for the fine work he and his staff did in

preparing the course for the SBC Senior PGA Open last month. The course was in magnificent shape and showed the world once again what golf in Chicago truly is. On a side note, but just as important, Kemper Lakes was recently designated a Certified Audubon Cooperative Sanctuary by the ACSP—the seventeenth course in Illinois, and the 217th in the world to achieve this prestigious designation. Contributing editor's apology for not mentioning the SBC event in Dates to Remember prior to it. Mea culpa . . .

Also congratulations go out to **Hans Hopphan** of Blackberry Oaks Golf Club, who officially retired on June 1. A large gathering of Hans' closest friends and relatives took place at the club's restaurant, Ralph's Place, and went well into the night. Granted, retirement for Hans means something completely different than it does to you and me, as he was at work the very next day, and every day since. Overseeing a bunker renovation project sounds like a nice way to relax, huh?

On a related note, **Steve Holich** is now the superintendent at Blackberry Oaks. Congratulations, Steve, and good luck with your new gig, which is no piece of cake what with the Fox Valley Golf League tearing up the course every Wednesday . . .

Best wishes to Oscar Miles, CGCS and his staff in hosting this month's U.S. Women's Open at The Merit Club. This will be another opportunity to showcase

one of the best-conditioned golf courses in the world to an international audience, and there is no better person than Oscar to head it up. Those of you who visit the MAGCS message board know that several of The Merit Club's past assistants and other MAGCS members will be assisting in the preparations for this important event, which is a tribute to Oscar AND to our Association. Anyone interested in lending a hand can e-mail Oscar at olmMerit@aol.com, or call him at 847-816-6985. Knock 'em dead, guys!

Our own (we still think of him as our own) **Bruce Williams, CGCS**, chaired a cross-committee meeting of GCSAA's Membership Standards Resource Group, which included nearly 80 Career Development, Certification, Education and Membership Committee representatives on April 15-16. The meeting focused on the proposed Professional Development Initiative and included MSRSG's recommendations and review of all feedback received. According to Bruce, the meeting was very productive, with many issues raised and resolved. More information on this hot issue can be obtained through GCSAA.

For the second consecutive month, **Dan Anderson, CGCS**, of Fox Valley Golf Course gets a pat on the back. Dan was featured in an article titled "Plant Doctors" that appeared in *The Sun's* May 19 paper. Also quoted in the article was our very own Dr. Randy Kane (a.k.a., the Dirt Doctor, according to last month's feature article author). Exposure such as this is key to the public's understanding of what we do, and any opportunity to take part in such a PR bonanza should be met by MAGCS members with open arms (in my humble opinion).

May's ITF Golf Day at Silver Lake Country Club was a huge success, with all participants enjoying a beautiful day on a beautiful course, thanks to **Dudley Smith, Dave Kohley** and staff. Dudley made a surprise appearance after the delicious steak fry, and his many friends gathered around him like mosquitoes around a blood bank. Congratulations, Dudley and Dave, for the great conditions!



Dudley Smith and Dave Kohley were our gracious hosts for May's ITF Golf Day.

You know that map in *Golfweek's Superintendent News* that flags North America's course conditions? MAGCS member and past president **Ed Fischer, CGCS**, was the guy from Illinois quoted in the May 26 issue, highlighting his strategies for promotion of root development through the use of wetting agents and deep, sustained irrigation. Good to see our guys in the spotlight.



The Schmitz family and extended family enjoyed their day together— L to R: Ed Esgar (Ravisloe C.C.), Todd Schmitz (Aurora C.C.), Ray Schmitz (Flossmoor C.C.), and Mark Schmitz (Meadows G.C.).

Since the theme of this month's *Bull Sheet* seems to be members in the media spotlight, new member **Jon Jennings, CGCS**, of Chicago Golf Club was featured in the June issue of *Golf Course Management* magazine's "Back Nine" section. Jon and longtime friend and fellow super-

(continued on page 40)

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own with his lovely wife, Nannette.

First stop, Pine Hollow Country Club, Long Island, NY. Pat was hired as assistant superintendent: a great five-year experience to learn the trade and see a lot of major league baseball games. (Pat is an avid baseball fan.) On to Lake Naomi-Timber Trails Club—for an opportunity to be “the man,” golf course superintendent, at a resort course in the Poconos. Lake Naomi-Timber Trails Club was a tremendous two-year experience, but something was missing. Yes, you can take the man out of the Midwest but you cannot take the Midwest out of the man. It was time to go home: family, White Sox, Bears, Naperville and RedTail Golf Club. Pat accepted a golf course superintendent position at RedTail Golf Club and has been in this position the last three years.

Pat commented throughout our afternoon that each year, he can see continued improvements in RedTail Golf Club—a very, very good feeling! And he knows

Pat, who is a member in good standing of the MAGCS and GCSAA, enumerates many challenges with his job, from teaching golfers to better respect the golf course to accomplishing goals within a lengthened, everlasting season . . .

best how the course has changed from three years ago to today.

Designed by Roger Packard in 1987, RedTail Golf Club was originally intended to be an extension of a private club, Turnberry: an additional 18 holes for Turnberry’s membership.

Financial difficulties befell the project, and the golf course was sold off to the Village of Lakewood. RedTail opened in 1991. In 1997, the Village of Lakewood agreed to a management contract with the Meadowbrook Golf Group. Both parties mutually agreed that RedTail Golf Club not only could be profitable, but also could provide the village residents a valuable asset.

During my spring visit, Pat pointed out some of the unique topographical and golf course features:

- three ponds that come into play on six holes;
- extremely (and I mean extremely) large bunkers throughout the golf course—a total of 80;
- 65 acres of wetlands;
- two island greens;
- open layout and large tee boxes on 225 acres, which means wind often adds to the challenge (Pat has no control over this!);
- Pat’s signature hole, par-4 #15; and
- Village of Lakewood landmark, the 100-year-old Big Red Barn (a.k.a. Pat’s maintenance building).

Pat is very proud of the continued improvements to the golf course, which include:

- cart paths throughout the golf course;
- ongoing renovation/rebuilding of bunkers;
- completion of drainage projects;

- erosion control and steel reinforcements around the island greens;
- prairie restoration;
- tree planting (20 to 40 trees per year); and
- (with fingers crossed) a new clubhouse and maintenance building in the future.

Pat, who is a member in good standing of the MAGCS and GCSAA, enumerates many challenges with his job, from teaching golfers to better respect the golf course to accomplishing goals within a lengthened, everlasting season, from delivering so much with so little time to always, always trying to spend quality time with his wife and two beautiful daughters Breanne (6) and Madison (4).

When I talk with superintendents, I always ask, “Why?!” Twelve- to 16-hour days, six or seven days a week, on call all the time, budget constraints, staffing problems, limited family time, etc., etc. The answer is generally the same among most superintendents, and Pat’s response is no different.

“I love to be outdoors. I truly take pride in nurturing and improving a piece of land that is near and dear to the residents of the Village of Lakewood. I find deep fulfillment in the preparation, development and upkeep of something the general public can enjoy. I love the game of golf and thoroughly enjoy the time spent with my associates. I love to take my two little girls around the golf course and spend quality time with them.”

And after spending an afternoon with Pat, I learned the good far, far outweighs the bad. Pat, thanks for an enjoyable afternoon at RedTail Golf Club. I look forward to the July meeting.



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intendent Pat Sisk competed in the New York City Marathon last fall, placing 6,414th and 22,184th respectively out of 31,785 contestants. A marathon is 26.2 miles. I get tired DRIVING 26.2 miles.

.....
 Deep sympathies to United Horticultural Supply's **Al Van Alsburg** on the tragic loss of his wife Diane. The MAGCS offers its warmest condolences.

Finally, our hearts go out to everyone in the business who survived the severe storms last month. Judging from the comments on the MAGCS Web site, the devastation was incredible. Stories of over 200 trees lost, lawn furniture stuck into building walls, feathers shot through fence posts, the appearance of flying squirrels where flying squirrels don't exist, and the like were common from superintendents whose courses happened to be in

the path of Mother Nature's hissy fit. The silver lining to this dark cloud was the assistance the affected courses received from fellow MAGCS members. Chippers and chainsaws were lent, manpower was sent out and many commercial members were there in a moment's notice to help. I hope things are getting back in order for those of you who had to endure this, and that the rest of your season is not so eventful.



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On Course With the President (continued from page 4)

I know I have written this before, but I find it bears repeating if for no other reason than to remind myself. We always need to keep our priorities in order. This is a challenging time of year and it is very easy to lose our focus. Keep an eye on the big picture and enjoy today. There are no promises for tomorrow.

While scanning the membership at a recent MAGCS meeting, I noticed a similarity among many of us. Quite a few superintendents are becoming light in the hair department. You all know who you are, and those of you with a full head of hair aren't working hard enough. So this being the case, and with my message this month about remembering how to laugh, I thought I would attempt to be funny. If the following makes you smile, I will take the credit. But as with so many

other things around here, if my attempt fails miserably, I blame my assistant Dave.

From the home office in Naperville, IL, the top ten reasons golf course superintendents lose their hair.

10. Children—From 2:00 a.m. feedings to 2:00 a.m. curfews.
9. Pesticides—Mixing Thiram TGF with your arm seemed like a good idea at the time.
8. Mother Nature—The ultimate in a sense of humor.
7. 90-degree rule—30 plus 30 plus 30 = 90.
6. Canadian geese—Being outsmarted by a 20-pound bird with a brain the size of a pea.

5. New employees—That's a string-trimmer, not a chainsaw.
4. Superintendent's wife—If you're not married, you have hair. Enough said.
3. Veteran employees—You did say 30 ounces per thousand?
2. General managers—Is that a copy of *Golf Course Management* on their desk?
1. Golfers—It's a frost delay, I didn't know I couldn't use the putting green.

Time is precious, especially in our line of work. Try to brighten someone else's day with a touch of humor. It will give quality to you as an individual and keep your focus intact. God bless, and keep it light. 