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President's Message



Ray Schmitz

Every golfing season the subject of green speed comes up and it happens around the time of the U.S. Open Golf Tournament. During an event such as the U. S. Open the U.S.G.A. Tournament Committee and the T.V. announcers lead viewers to believe that green speeds in excess of 11' are a common practice at the best clubs in the country. This is misleading.

Giving this some thought, how many golfing members really want speeds that fast? Are they intimidated by players who demand "fast" greens assuming they are the best putters at the club? Our club belongs to the U.S.G.A. Turf Advisory Service and during the annual visit the T.A.S. Agronomist will caution that close mowing will lead to numerous problems on greens — thinning of the turf, algae growth, poa annua invasion, etc.

Some members at my club watch these tournaments and immediately become green speed experts and are convinced that speed in excess of 10' can be maintained on a daily basis from April to November on old greens of the mixed German Bent variety. One member at Flossmoor Country Club made a statement that he thought simplified the green speed issue. He said "a good golf course has good greens, whereas a great golf course has fast greens." If that were the case it looks like we golf course superintendents have wasted a lot of time on education, seminars, and years of experience in order to learn how to better manage all aspects of the entire golf course. Fortunately for us, the true golfer realizes there are many factors to be considered in creating a "great golf course."

A date to remember is November 4th, 4:30 p.m. at Oakbrook Hills Resort. The purpose of the meeting is to introduce the newly proposed by-laws changes as recommended by the GCSAA. Please plan to attend this meeting because the MAGCS Board of Directors are taking these issues very seriously and are looking for input from GCSAA voting (class A and B) members. My understanding is that the MAGCS voting delegates to the GCSAA Annual Meeting in Anaheim will place your and my vote for the entire chapter.

Ray Schmitz

Saving a Diamond in the Rough

by Jennifer Nolan Miller, Jerry Baer & Nick Hongisto

"I've been asked to tell you my story. I must admit it's been a colorful 64 years. I've lived through the Depression, World War II, and Rock 'n Roll. I've seen Bobby Jones' Grand Slam, Nicklaus' six Masters, and Watson's five British Opens. Or was it six? I've reached the heights and seen the depths, seen the hackers and the pros, the invention of titanium shafts and heard about these new lightweight mowing practices. I'm lucky, golf is popular again for the third time in this great country, and I'm going to be a part of it.

Schaumburg Golf Club

I was born in 1926, just northwest of Chicago in a gently rolling area of Schaumburg, Illinois. They called me Westmoreland Country Club. "Westmorely" for short. My architectural parents were the well-known team of William B. Langford and Theodore J. Moreau. (Where they got the name Westmoreland is beyond me). I covered 205 acres with 27 holes, and sported an elegant clubhouse, wide fairways and quite a few trees for a youngster.

The word spread quickly about the beautiful golf course and its fine amenities — banquet halls for lavish weddings and parties, card rooms, a bridle path with pony rides and horses, tennis courts and a sand box playground for children. Then it was renamed the Roselle Country Club in order to emphasize its regional appeal. Years later, the club was sold to a family who renamed the course Golden Acres. The facility soon fell into neglect and was nicknamed "Concrete Acres" because of the hard, poorly tended fairways. In the early years of golf, irrigation was not a common practice on fairways and only the first tees of each nine holes were watered on this course. By the late 1980s, the greens were 80 percent annual bluegrass (*Poa Annua*) and full of thatch. The tee boxes had little or no grass and were infested with weeds. Each year the course developed "dollar spot", an unsightly turf disease which created small brown patches on the tees and greens.

I nearly starved to death from lack of fertilizer and the nutrients necessary for my fine soil. Many of my trees needed pruning badly or had died. Broomsticks and towels were actually used for flag sticks! The original irrigation system had long since been broken and abandoned, and when it rained my sand traps would be filled for days.

There were plans for selling the course for a subdivision, building a major roadway through the center, and reducing it to nine holes. There were no permanent tee times or lessons. The clubhouse had become so dilapidated and the banquet hall so outdated and dirty that they fell into disuse and served only as a changing facility.

I was at my wits end when the Schaumburg Park District stepped in. They understood how important I was to the community, not only as the only 27-hole golf course in town, but for the green open space which I represented.

The Schaumburg Park District began its course of action in 1987. The district's director, Jerry Handlon, said, "It took two long years of difficult negotiations to bring the owners of the course to the bargaining table in September of 1989."

The sale was finalized for \$15.5 million. The district used alternate revenue bonds (ARB's), which rely on monies pledged to pay the bonds with any revenue source from the park district. A new bond issue is sold each year to pay the principal and interest on the ARB. Similar to an installment contract, the principal is not applied against any bonding caps for general obligation bonds. The district must take care that the general obligation bond issued to pay off the ARB does not fall within the various statutory limits in place. This particular bond issue is for ten years.

I have to tell you, the day the Park District took over was a real turning point. Not only did my name change again to the Schaumburg Golf Club but I had a new lease on life. Bill, one of our old timers, thought they had put down a new floor in the clubhouse overnight. He was flabbergasted to find out all they did was wash the dang floor! And then, they cured my dollar spots in seven days.

The district brought in Bob Lohman of Lohman Golf Designs to assess the damage. Mr. Lohman shared the staff's sentiments that the course had the potential to be one of the finest community golf courses in the Chicago area. Plans to restore began immediately. Because the course has 27 holes, planners adopted a three-phase approach. This minimized the inconvenience to the golfers by allowing a full 18 holes to be open for play at all times.

Phase I began with the renovation of the Yellow course (the back "9"). All the original features of the Yellow Nine were kept, and workers rebuilt the new greens and tees to USGA greens construction specifications. They replanted all the tees and putting surfaces, and rototilled and fertilized the fairways to create a good seedbed. To add to the course's challenge, they changed the grades on several of the fairways and then seeded them with a blend of 1/3 Pennncross, 1/3 Penneagle, and 1/3 Seaside Creeping Bentgrass. The bentgrass fairways were chosen over standard bluegrass due to the higher quality of play they would provide.

The irrigation system is a double row system with a computer control system which computes the daily weather conditions, the type of grass and soil, and how much water needs to be applied each evening. This state-of-the-art system maximizes use of the ponds and two deep wells on the property without depending on any city-supplied water.

Phase I	1.4 million	Yellow Nine (Back Nine)
•Nine Hole Renovation Bentgrass Fairways Toro Irrigation System		April '90-Sept. '91

(cont'd. page 4)

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(A Diamond in the Rough cont'd.)

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Aug. '90-Nov. '92

Phase II 1.2 million

- Nine Hole Renovation
Seeded Aug. '92
- New Driving Range
- New Practice Chipping Range

Red Nine
(9 Hole Course)
Sept. '91-May '93

Phase III 1 million

- Nine Hole Renovation

White Nine
(Front Nine)
May '93-Spring '95

The existing maintenance buildings were in extreme disrepair, with dirt floors, little or no heating, and poor lighting. Workers built the new maintenance facility in 1991, which is ample enough to house all the necessary equipment needed to maintain the 27-hole course, the lunch and locker rooms, and the superintendent's office. The maintenance building also adheres to all EPA requirements for pesticide storage and new monitored underground fuel tanks.

During construction, several unforeseen problems surfaced. No as-built plans were available, so the locations of any underground drain tile and the abandoned irrigation system were unknown. Obviously this caused several problems. When someone cut an old drain tile during construction, it would start to drain. In some cases, the drainage lasted for days. No one knew whether the water came from years of build-up in the existing pipes or was generated from another source, but the result was the same: redesign of the main drainage system at a considerably higher cost.

During the demolition of the maintenance shop, workers from a licensed hazardous waste disposal company had to remove a very old, leaking fuel tank and all of the surrounding contaminated soil. This unforeseen process was also an expensive extra.

The first thing anyone noticed upon entering the clubhouse was its less than charming 1920s decor. The second major and rather disconcerting discovery was the bees and wasps that infested the walls. This, along with the building's structural stability and design limitations, confirmed the decision to tear down versus renovate. Plans for the new clubhouse became part of the golf course master plan. The new clubhouse would contain banquet facilities for parties of up to 350 and adequate parking. A semi-private club room would be provided to regular players for a nominal "membership" fee. The pro shop would be modern and well-equipped, and a restaurant/grill would be added.

The resulting structure is a 45,000-square-foot clubhouse with three levels. The basement contains the locker rooms and a storage area for the gas golf carts. The first floor holds the banquet facilities, general offices and the pro shop. The second floor contains a nursery area, an apartment for the caretaker and the club room. To maximize use of the facilities, the club room is equipped to stage and light dinner theater productions and can be divided into meeting rooms.

After demolition of the old clubhouse, construction began in April 1991. The facility has booked its first banquet for December 1992. The Frank Lloyd Wright Prairie style of ar-

(cont'd. page 6)



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(A Diamond in the Rough cont'd.)

chitectural design retains the 1920s feeling, carried through to the interior decor.

The Schaumburg Park District operates on a committee structure which uses appointed citizens from the community to serve on an advisory committee. The decisions of this committee are not binding at the board level, but are seriously considered. Members of the park board sit on each advisory committee.

The district had already established a Golf Advisory Committee when an executive par 3 golf course was built in 1986. The committee is made up to two commissioners, interested citizens and two professionals from the golf industry. One is a PGA professional who lives in Schaumburg and runs a neighboring public golf course, another is a certified golf course superintendent at a local private club. All of the committee members love the game and want a fine golf facility in Schaumburg. All rules and regulations and master plans for the course go through the advisory committee to the park board. The park board has been an important and integral part of the decision-making process throughout the renovation.

Mr. Pepi Irwin, the club professional, says "One of the strongest features of the layout of the course is the generous fairways which lend the course to all levels of play. They are wide enough for the high handicap player to keep the ball in play and offer a challenge to the lower handicap player with grading differentials and proper bunker placement."

To encourage golfers to protect the new turf, the park district introduced the "dollar off" incentive program. Each golfer who witnessed replacing or repairing a divot or ball mark by rangers or grounds crew is presented a "dollar off" coupon for their next round. The program has been enthusiastically received.

I have to tell you, I'm feeling like a "million bucks!" I'm so proud of my new nine's lush fairways that are actually green. My rolling greens can be forgiving, but don't turn your back on them or you'll regret it. They're planting the prettiest flowers, fancy new grasses, and my trees are tapping their roots and reaching for the sun. There's nothing like a nice cool drink of water when you need it. With the Schaumburg Park District's help, I'm finally on my way to becoming what I was meant to be.

Credit: Park and Recreation, May '92

Kentucky Bluegrass may be key to herbicide

Dead Kentucky bluegrass could be the key to a more natural, environmentally friendly herbicide. That's because the killed grass exudes natural compounds that can hinder other plant growth. Researchers say these compounds kill dandelions and other broadleaf weeds, and might be reproduced artificially for weed control. The compounds are similar to those seeping from dead quackgrass; at least one of the quackgrass compounds will kill slugs. The bluegrass compounds were discovered after farmers in a New York pasture renovation project had trouble getting a forage legume called birdsfoot trefoil to grow on patches of killed grass later identified as Kentucky bluegrass.

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On the Waterfront

by Jim Reed

This month's agenda will conclude the section on "PVC Strength Characteristics and Typical PVC Fitting Failures" and proceed to "Pressure Surges — What Causes Them and How to Control Them".

The last area of PVC fitting failure to be discussed is mechanical failure. "Mechanical failure covers a multitude of piping failures that are unrelated to but may interact with the hydraulics of the system. One of the most common types of failure is splitting of female threaded fittings due to over-tightening. Since PVC is visco-elastic, it yields more easily on thread make-up than steel. The threads are also smoother and create less friction in make-up. It is, therefore, very easy to over-tighten PVC fittings. It is possible, with very little effort, to create circumferential stress beyond the failure limit when assembling threaded fittings. This is even more pronounced when using some thread lubricants, dopes, or sealants. The failure usually appears as a split, perpendicular to the threads, beginning at the leading edge and extending into the body of the fitting. Occasionally, a split at the base of the female threads will appear parallel to the thread direction. This will usually occur in a fitting with a shoulder or thickened place near the base of the threads and is more common when the male part bottoms against a shoulder.

A second type of mechanical failure occurs when inadequate thrust-blocking is provided. This allows excessive pressure to be placed on a fitting as the line pressure tries to displace it while the fitting is restrained by the pipe to which it is attached.

A third type of mechanical failure occurs due to improper solvent welding of improper fitting assembly. Improper penetration of pipe into socketed fittings significantly reduces the strength of the fitting. Improper solvent welding techniques can cause failures in the bonding, creating leaks or separation.

Another type of mechanical failure can occur due to temperature expansion. If sufficient expansion/contraction allowances are not made by providing expansion loops, offsets, or slip joints, severe stress can be placed on the pipe and fittings".

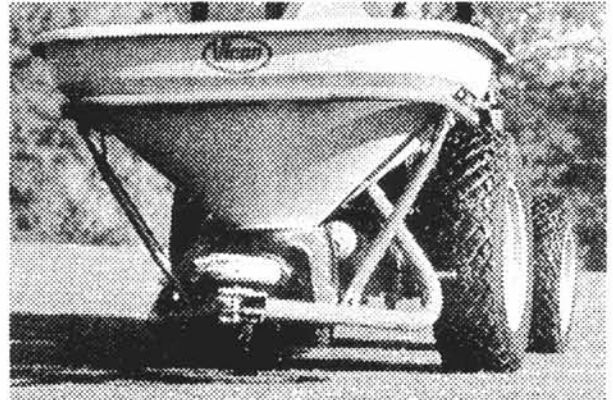
We will now proceed to a new section of the Keller-Bleisner study on "Designing, Operating and Maintaining Piping Systems Using PVC Fittings" titled "Pressure Surges — What Causes Them and How to Control Them".

"Few piping systems are operated under 'static' conditions for long periods of time. Hydraulic transient conditions, or 'surges', occur in every irrigation system. A pressure surge, or 'water hammer', is created any time the flowrate changes in a piping system. This may be caused by valve operation, pumps starting or stopping, line breaks, or rapid escape of entrapped air.

When a pipe contains a column of moving liquid, there is considerable kinetic energy stored in the liquid by virtue of its mass and velocity. If this velocity is suddenly decreased (by the quick closing of a valve) this energy cannot be absorbed by the liquid, since the liquid is nearly incompressible. It appears as an instantaneous shock to the pipe, which may lead

(cont'd. page 10)

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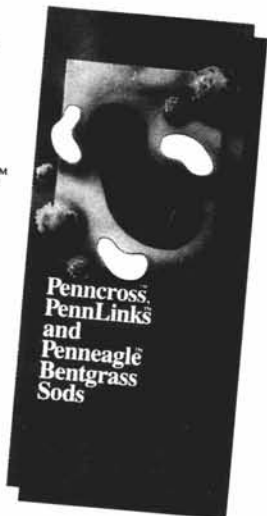
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(On the Waterfront cont'd.)

to excessively high pressures. This effect is greater as the pipe line is longer, the velocity change greater and the closing time of the valve shorter."

A table in the article gives an example of the maximum pressure surge with instantaneous valve closure for water flowing in PVC pipe. In SDR 21 pipe (what we refer to as Class 200 pipe) with a velocity change from 5 feet/second to instantaneous close, a pressure surge of 80.2 psi is observed. The same situation as described above at 6 feet/second yields a 96.3 psi surge; at 8 feet/second - 128.3 psi; at 10 feet/second - 160.4 psi. The 6, 8, and 10 feet/second velocity's of flow are not recommended in system design and will be covered in next month's article.

Sod-Faced Bunkers: An Old Idea That Works Today

by Tim Scott, Asst. Lake Shore C.C.

The history of sod-faced bunkers most likely goes back to the late 1800's when the Scots lined the faces of their bunkers with sod bricks, also known as revetting. The reasons this process was used on many of the bunkers was to provide definition and the steepness helped prevent the winds from blowing the sand out. Importantly, revetting enabled the Scots to build these walls to enormous heights and had the desired effect to alter or disrupt the players swing.

Today, Muirfield in Scotland is one of only a handful of golf courses in the world that still uses revetted bunkers. In the U.S., there are some golf courses that use a variance of this method for their bunkers such as The Golf Club in Columbus, Ohio; a private club in Lake Forest, Illinois and the famed "Devils Hole" at Pine Valley in New Jersey.

As with the Scots and their use of sod bricks, one can also build a sod-faced bunker using sod rolls. There are advantages and disadvantages to constructing a sod-faced bunker. On the positive side, it is easy to form a bunker face with a steep angled slope and of enormous heights. By using rolls of sod, one doesn't need to worry about trying to grow grass on the face of the bunker, which can be very difficult. The sod wall can be substituted for sand where washouts are a constant problem on bunker slopes. Also, with a steep face, one is able to reroute players to an easier exit rather than having them climb up the face and destroying it. On the downside, the amount of sod needed can be expensive and over a period of five to seven years, the sod wall may need to be rebuilt. If you plan to construct a sod-faced bunker, the following is a general guideline for this procedure.

STEP 1 — Calculation of Sod Needed.

Determine the amount of sod needed by measuring the area, length by height, where the sod wall will be built. I suggest this step first in case sod is not readily available for the project, otherwise, Step 2 can precede Step 1.

NOTE: When determining the amount of sod needed, the thickness of the sod should be taken into consideration.

Reach, Speed & Stability



Ford New Holland "Super Boom" skid-steer loaders do more for you:

- * Reach - Loads center of six-wheel dump.
- * Speed - Faster cycle times, speeds up loading/unloading operations.
- * Stability - Longer wheelbase with low center of gravity.

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