

# Planning is the Key

## In-House Projects

As we emerge from the busy winter golf season, when Florida golf courses make hay at the cash register, superintendents go through the spring rituals of turf renovation and managing the transition

phase owners, superintendents and members need to consider all the pros and cons of doing the project to make sure they get the desired results. It may look good on paper to use people already on staff with the thought of an immediate cost savings, but while the staff is digging ditches, laying pipe or installing

rainy season. What effect will weather delays have in the project?

Another key consideration is the expertise of the staff to handle overly ambitious projects. Not everyone was born a civil engineer or golf course architect and that goes for the



*Removal of stumps and sodding the gaps left by storm-damaged oak trees became the Winter Pines G.C. unplanned, in-house project for 2004*

from overseed back to the bermudagrass base. But in a state with a 365-24-7 turf season, the impending warm summer months mean only that we will be making hay in the fairways and roughs. And while play slows down the grass growth speeds up. What better time to consider major projects for the golf course? I'm being a tad sarcastic, but in reality from a customer-service standpoint, it is probably the best time to take on major projects. The next question is how: In-house, outside contractor or a combination of the two?

The key to any major project on a golf course is the planning of course, and during this

drainage, coring out bunkers and hauling sand, striping and grading tees, laying truckloads of sod, cutting down trees, planting trees — you name it — the growing turfgrass still needs mowing, edging and fertilizing.

Then there is the question of closing the course or working in play. Both approaches have their pluses and minuses in course conditioning for the players and disruption of the progress of the work. The main thing is to make sure everyone is on the same page so the customer isn't surprised if things aren't up to usual expectations. And of course the summer is our

armchair experts in the clubhouse too. Hiring at least a consultant to oversee the more technical aspects of a major project is well worth the cost.

In general, superintendents are innovative and creative people, but they may not know all the intricacies of land planning and construction engineering. That's why people major in other fields besides turf management.

Taking on and successfully completing an in-house project can be an extremely rewarding and team building endeavor. Just make sure you do your due diligence before you break ground. Good luck.

In House Projects

# Building One Project at a Time

By Joe Ondo, CGCS



*Winter Pines has been selectively rebuilding the old push-up greens over the years to improve drainage and performance and to replace contaminated putting surfaces. Photo by Joel Jackson.*



*New 7-foot wide concrete paths replace and re-route the old asphalt paths. The crew often led by the owner Ed McMillin pours the new path in 110-foot long sections, which equals one truck load of concrete. Photo by Joel Jackson.*

When I first started at Winter Pines in April 1979, the owners had just built five new holes. They installed new irrigation on those holes and on parts of the other four holes on the front nine. The rest of the course had some automatic controls on greens and tees and all quick couplers in the fairways.

When the new owner bought the course, the decision was made to add automatic irrigation to one or two holes at a time to keep the course open and minimize disruption to play. We basically duplicated what had been done on the other holes. All the work was conducted during normal play and by our own crew.

The city of Winter Park built a new water treatment plant in 1983 and offered the effluent water to us in 1984. They also offered to help pay to finish the last hole and the driving range so they could use the course to dispose of the treated water. We had our old well capped and sold our pump and have been using the effluent ever since.

This project allowed us to install lots of isolation valves and group our sprinkler heads to run

together either on high mounds or low areas needing less watering time. We installed Griswold valves and controls and they have worked well managing the effluent water.

Besides the irrigation system upgrade, we also engaged in a long-term greens-rebuilding program. All of the greens were native soil, push-up construction with no internal drainage. Some we could fix by installing drainage, but some of the

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One of eight new bridges installed by the Winter Pines staff. Photo by Joel Jackson.



The project to lower a high bunker lip was a snap compared to some of the long-range, in-house projects accomplished at Winter Pines. Photo by Joel Jackson.

greens also suffered from some of the typical off-type contamination/mutation prevalent in that era and some gave us problems at different times of the year.

Some we fixed by re-sodding, but we knew that was just a short-term solution.

We decided to hire someone to help us rebuild a green – still using our own crew. After doing one and seeing the results, we decided to continue doing one green a year. We'd mow a temporary green in the fairway for our players, and then strip the old sod off the green, add drainage haul in some good greens mix, do a rough shaping, have it fumigated, pack it and then plant sprigs and grow it in.

This system worked well but it took 9-10 weeks before we could reopen the green. We are a public course and most of the players didn't mind because they could see we were making improvements to the course.

After doing five greens this way, we heard about Rapid Turf and decided to give it a try. Everything was prepared just about the same way as before, and then the Rapid Turf folks brought in and installed the 50-foot-long by 4-foot-wide rolls of Tifdwarf sod. It was unrolled, packed and top-dressed. Even if it wasn't fully rooted down, the green was useable in three weeks. It was better than putting on a temporary green for another seven weeks. We made the green's size approximately 5,000 square feet with lots of cupping areas to handle traffic since we do around 80,000 rounds per year.

We built six greens using this method and even added on to some smaller greens to make them bigger. The new Tifdwarf closely matched our good old greens and has stayed pretty clean so far and putts pretty well. We didn't do a green this year, and with all the hurricane-clean up, I'm glad we didn't. We will consider doing more greens as we see ones that start giving us trouble.

Another in-house project we tackled was replacing our asphalt cart paths with concrete and extending the ending points to higher and drier ground. Most of the black-top paths had lots of holes and patches and were built in too many low areas or just in the wrong place for the play of the hole. We came up with a plan of doing 110 feet of path, 7 feet wide at a time.

This allowed us to demolish the old path, lay out the new path route formed up with two-by-fours and pour a ten-yard truckload of concrete at a time. Most of the course did not have access for a fully loaded cement truck, so we hauled most of the concrete ourselves using our dump-body EZ-Go utility vehicles, a third of a yard per trip,



Railroad-tie curbing is installed along the new paths at the tee boxes. Non-skid rubber mat runners are installed to prevent golfer slips and falls. Photo by Joel Jackson.

until we emptied the truck.

We have done more than 6,000 feet of concrete path along our greens and tees and installed railroad ties for curbing along the tee slopes. We also poured an additional 250 yards of concrete to enlarge our customer parking lot and create a pad around our maintenance building and made three storage bins for topdressing, sand, gravel and golf course landscape/storm debris that needed to be hauled away.

We also replaced the bridges on the course. Most of them were 30-inch corrugated pipe covered with limerock and asphalt. The pipes and fill were dug out and a concrete pad poured on each bank. Three steel beams were welded in place and 10-foot-long, 4x6 pressure-treated planks were installed on the beams with lag bolts. Twelve-foot-long 6x6 beams were used as side rails. We have done eight bridges over the years.

And last but not least we have installed more than two miles of drain pipe in low wet areas to keep the course open and more playable during the rainy season.

As you can see, we have successfully completed many in-house projects. Our owner, Ed McMillin and his son Jon, are always striving to make improvements to Winter Pines to give area golfers an enjoyable place to play golf at affordable prices. Once we fully recover from the effects of the 2004 hurricane season, I'm sure we will have more projects in the works.

*Editor's Note: Recovering completely from the hurricane damage is requiring Ondo and his crew to cut down damaged trees, remove stumps and clear extensive areas of surface roots from decades-old oak trees and then backfill, grade and sod the scores of bare areas.*

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## Super Tips

# Whistling While You Rake - at the Straits

By Darren J. Davis

Whistling Straits, located one-hour north of Milwaukee in the village of Kohler, Wis., was host to the 86th PGA Championship this past August. While Vijay Singh was crowned the tournament champion, in my eyes Golf Course Superintendent David Swift and Director of Golf Course Operations Mike Lee were the true champions of the event.

If you have the opportunity to visit Kohler, I would strongly urge you to do so. The area

is home to world-class accommodations, dining, shopping and four of my favorite golf courses, all owned by Herb Kohler, Jr., chairman of the board and president of Kohler Company. Kohler is a company that undoubtedly many of our clubs do a significant amount of business with.

Of the four courses at Kohler, 36 holes are located at Blackwolf Run. Blackwolf Run, designed by legendary architect Pete Dye, opened for play in June 1988. The remaining 36 holes are located at Whistling Straits. Whistling Straits opened in 1998, and was also designed by Pete Dye.



*The open, rugged and windswept terrain at Whistling Straits translates into often deep, steep-faced challenging bunkers to maintain. Photo by Darren Davis.*

At Whistling Straits, Dye sculpted a bit of Ireland and a touch of Scotland on the 560-acre parcel of flat land along two miles of Lake Michigan shoreline. "Open, rugged and windswept terrain" are words often used to define the courses at Whistling Straits. This translates to deep, steep-faced bunkers.

Steep bunker faces that are a challenge to maintain, are not unique to Whistling Straits. I can vividly recall the same challenge while employed as a crew member at the Augusta National Golf Club. The strategy employed at Augusta is similar to that at Whistling Straits. The employee starts the process outside of the bunker, reaching as far down as possible with the rake, so once inside the bunker, they know how far up the slope to climb in order to rake every inch of the sand face. The challenge once inside the bunker is to rake the entire slope without digging your feet into the sand on the slope, creating indentations. This is the same problem that Lee and Swift faced at Whistling Straits.

Lee and Swift used some old-fashioned ingenuity to solve the problem on their course. To add length to the leaf rake without drastically increasing the weight of the tool, a 20-foot section of 1-inch PVC was bolted to the existing handle of a leaf rake. To create the tool, 1-inch PVC is slid over the rake handle and two holes are drilled through the PVC and the rake handle. The pipe is then secured to the rake handle with a nut and bolt. The result is a lightweight, inexpensive, easy-to-store and transport tool that decreases the time and effort involved in raking steep bunker slopes. If a 20-foot rake is slightly larger than what you desire, the PVC pipe can be cut to fit the needs at your golf course.



*Whistling Straits Superintendent David Swift shows a standard bunker rake and one of the long-handled hybrids he developed to maintain the bunkers. Photo by Darren Davis.*