### **DESIGN & DEVELOPMENT**

## Olympia Fields' North Course fixes go beyond 'skin-deep'

### By RICHARD YACH

CHICAGO - The North Course at Olympia Fields Country Club south of Chicago has seen its share of great golf tournaments since it was built in 1923. The U.S. Open was played there in 1928, Western opens and most recently the U.S. Senior Open in 1997.

When the USGA saw that the course had the potential of challenging the likes of Woods, Duval and other stars of the PGA Tour, it awarded the course the privilege of hosting the U.S. Open in 2003.

In order to make this happen, however, the USGA required that the course be made tougher. Even though it played tough for the PGA seniors in 1997, it was't brutal enough to suit the USGA, which has the reputation of making its championship golf courses a severe test of the ancient and royal game - narrower fairways, thick rough; deep sand traps, lengthened tees, lush, heavy fringe grass; and fast and hard greens. But getting these changes made is a big job and a complex one.

Dave Ward is head superintendent and Kevin West is the golf superintendent at Olympia Fields. If they thought they had plenty of meetings prior to shaping the course for the U.S. Senior Open in 1997, they were in for plenty more prior to 2003.



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Sexauer Sphar Seed Sunbelt Seeds Van Dyke Seed W-L Research Willamette Seed Zajac Performance Seeds balls, requires planning, a complete understanding of the systems involved and detailed project management. Ward and West brought in Leibold Irrigation, Inc., of East Dubuque, Ill., Leibold Irrigation, specializes in golf course irrigation projects, building new systems and rehabilitating old ones. Ward and West also organized

The task of reshaping or reha-

bilitating a golf course, which

was built primarily in 1923, to

suit new millennium hitters, with

their high-tech golf clubs and

course architects, construction design engineers, an excavation contractor, and their own large maintenance staff, as well as involve the Illinois Department of Natural Resources, Army Corps of Engineers, and Cook County.

The first major change was to lengthen the North Course. It played at 6,900 yards for the 1997 event, and they wanted it 7,100 yards or longer. This means moving tees back, which is the simplest of the reconstruction challenges. As a result of the tee lengthening, one par-4 will play to almost 495 yards and a par-3 will measure 240 yards.

The second set of changes involved the bunkers. The sand bunkers on the current layout are plentiful but not deep. The USGA required that all the sand traps be dug deeper. Fairway traps would have to be altered to penalize shots slightly off the mark. Greenside bunkers would be moved closer to the collar of the greens.

The most crucial changes involved the greens. The decision was made to put in all new grass on 16 of them and the practice green, and core out and totally restructure two of them. The old grass had to be killed so that the new seeds would start fresh. A plastic tarp was sealed over each green and methyl bromide was pumped under the tarp to gas the existing green grass and any weeds. This had to be done early in the rehabilitation process to give the grass time to grow prior to work being done around it.

The most involved and complex part of the changes had to do with the drainage and irrigation systems. With all the bunkers dug deeper, the existing drainage pipes had to be removed and new ones put deeper with pump systems created to drain the water away.

The current irrigation for the North Course was the major part of the project, West said.

"Years ago, golf course watering wasn't nearly as scientific as it is today, and Olympia Fields' Continued on next page

Richard Yach is a technical writer working for Vermeer Manufacturing Co. of Pella, Iowa.

GOLF COURSE NEWS

### DESIGN & DEVELOPMENT

## Olympia Fields fix-up

**Continued from previous page** reflected the older philosophy," West said. "You had a mainline down the middle of the fairway, and four sprinkler heads around a green, with all sprinkler heads activated by hydraulic pressure. Now, the playing surfaces, fairways, roughs, collars, fringe grass and greens are so demanding that you have to have different watering requirements for each.

"To accomplish what the USGA wants, we had to have more control over watering each part of the course where each is affected differently by temperature, humidity and course playing requirements."

Championship-quality conditions means the greens have to be watered differently than the fringe, and the bentgrass fairways have to be watered separately from the rough. Areas like the mounds atop fairway bunkers, which may have escaped special watering under the older system, now require their own sprinkler heads to make the grass long and lush and difficult to play from.

The North Course uses a few wells that are inadequate to supply the water needs for the new irrigation plan. Where there are now four sprinkler heads per green, there will be 28. Where there are now 500 sprinkler heads, there will be three times as many — each with a specific area to water, with the time and amount controlled by computer.

To supply all the water needs, a 5,000foot-long transmission line with its own pump station had to be built from a large pond on the South Course. This water line had to extend throughout the North Course and feed all 18 holes.

Gary Leibold, the irrigation company's vice president, managed this project. His first task was to trench in the mainline from the lake on the South Course to the North Course and put in thousands of feet of mainline on the North Course, off of which the new laterals would be extended. He used a Vermeer T455 track trencher to put in the new mainline irrigation piping, which ranged from the initial 20-inch diameter at the lake source down to 6-inch diameter.

"This part on the South Course transmission line was done while the new greens were growing, from the end of August through September," said Leibold. "We wanted to do the trenching work that created the most spoil first. Clean-up is as important to us as it is to the members of the clubs we work on.

"Once the superintendents felt that the new greens were growing well, then we would start putting in irrigation laterals and heads around the greens, and the modified triple-row down reach of the fairways."

Leibold used Vermeer rubber-tire trenchers with vibratory plow attachments to pull in the 3-inch diameter and the 2.5-inch diameter down the center of the fairways and down each side. "We use the flotation tires on these 40 horsepower models," said Leibold. "And we like to put plywood sheeting down in front of our path so we minimize the footprint we leave."

The existing irrigation system will be maintained up until the point that the new system is completely installed. That way, the new greens as well as the rest of the course can be watered up to the exact moment when the new system is completely functional. Part of the mainline had to go under Butterfield Creek, which runs through both courses. Leibold's subcontractor used a Vermeer Navigator to make four bores under the creek. One bore consisted of pulling back 350 feet of 18-inchdiameter polyethylene pipe, while two others pulled in 400 feet of 10-inch piping line.

Moving tees, carving deeper sand bunkers and making sure that every part of a golf course receives proper attention involve the kind of meticulous effort that it takes to satisfy the officials who want to make their national champion truly earn the trophy at the U.S. Open.



Trench work at Olympia Fields' North Course



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