

Robin's Travels

We asked golf course architect Robin Nelson to list the big differences between designing golf courses in the United States and overseas. Take it away, Robin:

Travel and distance

Projects in Asia require lengthy airplane rides. It's not uncommon to spend 24 hours traveling from office to destination. From there it may be another 12 to 24 hours before reaching the site because of quality of roads, travel arrangements or even the mode of transportation.

During construction of the Shenzhen Xili GC near Hong Kong, travel was by taxi, bus, plane, train, foot, private car and motor scooter.

Other modes of transportation have included long boats, helicopter, camel and Lear jet. My favorite was the Mercedes private limousine with the three-inch bulletproof glass.

Time zones

When my headquarters was in Hawaii, I often endured "time-warp trips" — Hawaii to Europe is a 12-hour time change, and the East Coast to Japan is another 12-hour change.

Unless a client is extremely sympathetic, you're expected to start impressing everyone with dramatic instructions immediately after a 22-hour plane flight and journey to the site.

Language

In Asia, it is common to struggle with communication between the owner and architect, or the architect and the construction company leader.

While golf is a universal language (par, birdie, etc.), such things as backfilling trenches, ordering pump stations on time or, "You have to start planning the clubhouse sometime soon," can be lost in the translation.

Usually, my main concern is making sure what I draw on my plans becomes

translated correctly to the people doing the construction work — so my drawing skills are imperative. A person's pantomime, charade and facial-expression skills get tested quickly when working overseas.

Professional construction companies

In the United States, I can put a project out to bid and expect a pre-qualified list of five to 10 experienced golf course contractors who will bid on a job. This isn't the case in a lot of projects overseas.



Robin Nelson — Have camel, will travel.

There are many companies that say they're qualified, but I've had enough experience not to play that game. There's too much at stake to allow companies "on-the-job-training."

Maintenance

This is probably the most frustrating part of working overseas. The GCSAA has made huge strides the last few decades to advance maintenance of golf courses in the United States, and it's making progress in spreading the education and skills to the new golf markets. But many parts of the world are still eons behind.

Until the four facets of a golf course — design, construction, maintenance and operations — are equally balanced, we will be facing an uphill struggle. A lot of effort is put into explaining the

importance of how money can be saved if the resources are put to use in the proper place and at the proper time.

A good example is the process of hiring a qualified superintendent. In many countries, I still face the argument that a gardener can run a maintenance operation.

Labor

On a typical overseas project, it's not uncommon for 500 people to dig ditches, carry dirt and spread sand by hand.

Proximity of suppliers and vendors

A phone call will usually get results and replacement parts immediately to a site in the United States. But in Asia, it may be weeks or months before parts can be flown in, pass inspection, pass customs, be picked up and delivered.

Environmental concerns

The United States has many regulations regarding golf course construction. An architect worth his salt is a strict environmentalist, diligently follows every guideline and is well-versed in natural systems and environmental protection.

This is where we're making the most progress in developing countries — by applying these methods where there are no such guidelines or restrictions.

Social conditions

No construction can begin in the United States without having absolute title to a piece of real estate. This isn't always the case overseas, where many times there's no clear title, the land is in dispute or there may be squatters on the land.

There have also been many instances of violence over land ownership. Golf course routing must often be changed spontaneously to accommodate squatters' rights because of a last-minute document that "appears" by decree of local chiefs — or to avoid being blown away by shotgun.

Nelson, who has worked on golf courses in 21 countries, can be reached at RNGCA@mindspring.com.

When I read best selling author John Feinstein's Viewpoint column, "An Eye Opener," in that *other* superintendent magazine, I was pleased that such a notable writer of sports stories and regular columnist for *Golf* magazine had such an epiphany about the extent of what superintendents do.

Even before his recent revelations, Feinstein wasn't ignorant about the duties of a superintendent since he worked on a golf course as a youth. Still, by his own admission, it took him until the 1999 U.S. Open to *really* understand how much a superintendent can affect the playing conditions of a golf course. He came to understand the intimate knowledge superintendents have about the way the game is played and how the course will react to various conditions.

It's a great feeling that a golf-knowledgeable writer finally "got it" about our profession. I confess, however, that at the same time I celebrated his discovery, I thought wistfully that his article would do more for the profession if it had appeared in *Golf* instead. It is nice for 23,000 GCSAA members to know Feinstein sees what a smart superintendent brings to events week after week during the golf season. Our profession and our association would be better served, however, if his revelation would also be printed in a publication read by millions of golfers.

It doesn't do us much good to have important golf commentators preaching only to the choir. While we will always need choir practice to stay sharp, it's time to make sure the whole congregation gets the message. It's important that they hear a new song and start singing a new tune.

Articles like Feinstein's are just the kind of lyrics and melody that need to be sent to those influential golfers that GCSAA is always trying to reach. Consumer golf magazines should print more insightful articles like Feinstein's to educate golfers about how important it is to have a good superintendent managing the course.

There are issues facing golf that will require players to re-evaluate their expectations in the game and on the course. The sooner they un-

Go Tell It On the Mountain, Feinstein

BY JOEL JACKSON



IT DOESN'T DO
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PREACHING ONLY
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derstand the total golf picture, the better equipped they will be to deal with it.

In fact, if influential golfers ever stake their reputations on fixing the problems facing the game, they could have a tremendous effect on how we solve the broader challenges.

To do that, they need to understand intimately the knowledge and ability of that often quiet but hard-working man or woman currently keeping the green.

Whenever golf leaders meet, the focus is on growing the game, building (or not building) courses, attracting more players and limiting club-and-ball technology. Those are all worthy and necessary items when taken in context, but they pale in comparison to topics like where golf courses will get their irrigation water in the next five to 10 years. Who is fighting that battle besides superintendents?

The people who will manage golf courses in the next decade will be the most important people at golf clubs. We have been telling ourselves that for the past 75 years. It's way past time for more golfer-oriented publications and other allied golf associations to tell the world the same story — and with the same commitment they expend on balls-and-sticks issues.

Superintendents shouldn't have to seek the media to make their voices heard. In fact, it should be the other way around. Any golfer should know by now which person ultimately manages course conditions.

Seriously, I want to thank Feinstein for sharing his "eye-opening" experience with Pinehurst #2 superintendent Paul Jett's expertise at the 1999 Open. But please, next time, don't share it the choir — go tell it on the mountain, too.

Joel Jackson, CGCS, retired from Disney's golf division in 1997 and is director of communications for the Florida GCSA.

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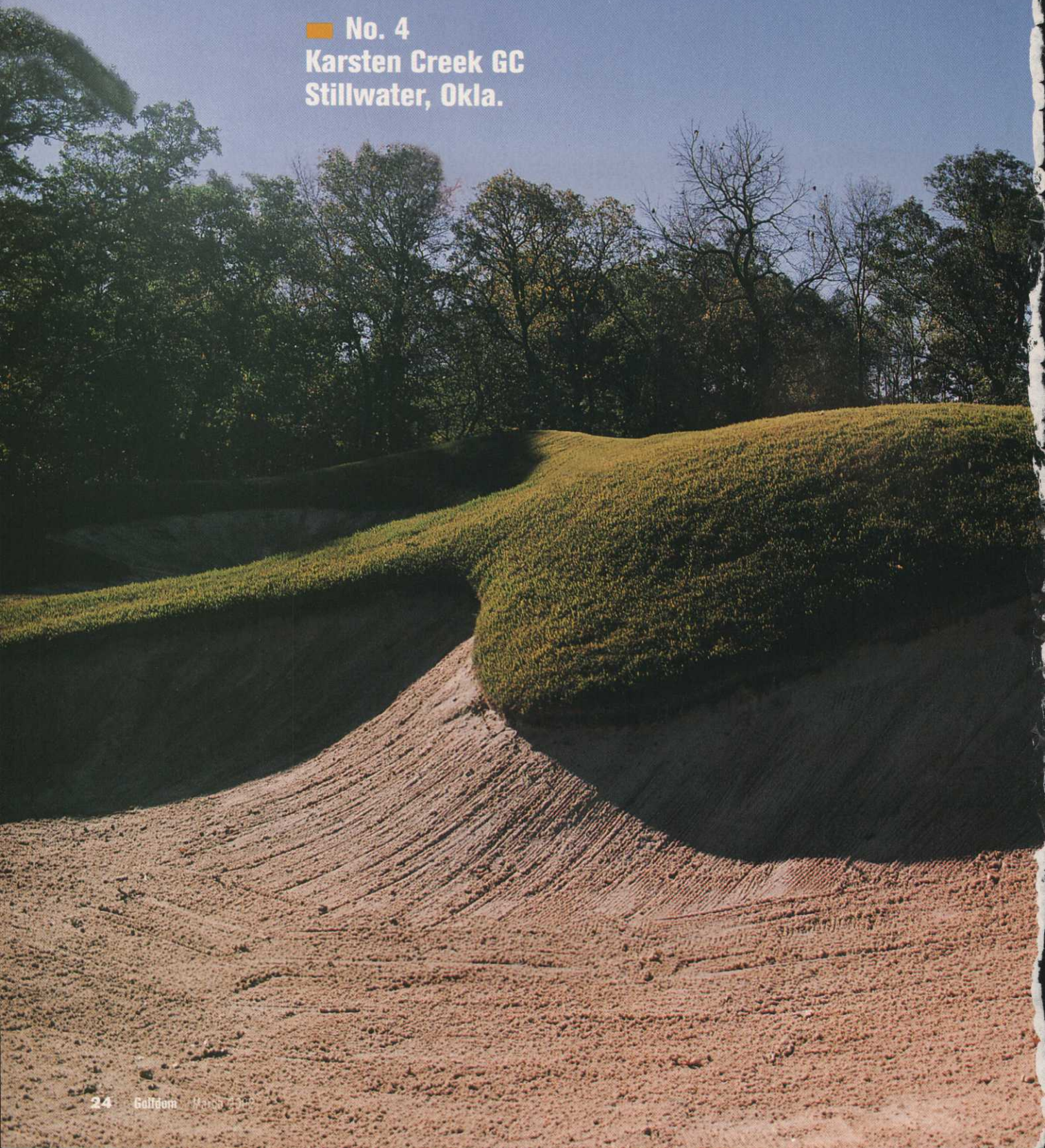
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Hole of the

■ No. 4
Karsten Creek GC
Stillwater, Okla.



Month

Flowing Strong

Karsten Creek GC opened to much acclaim in 1994. The Tom Fazio design was named in honor of the late Karsten Solheim, creator of PING golf clubs. Karsten Creek is one of the top tracks in Oklahoma. Superintendent Travis Levings is currently preparing it for the 2003 NCAA Men's National Championship, which the course will host.

Interestingly, Levings has been employed at Karsten Creek three different times. He worked as a laborer when the course was being built in the early 1990s. He left in '93 but returned in '95 as a member of the maintenance staff. He left in '97 to join The Honors Course in Ooltewah, Tenn., as assistant superintendent, but he returned again to Karsten Creek in December 1999 when he was hired as superintendent.

Levings says the 339-yard par-4 fourth hole is short but challenging. The hole plays into a prevailing southerly wind and has a small green. The biggest maintenance challenge that Levings and his crew face on the hole is maintaining areas near the steep creek, which runs the length of the hole.

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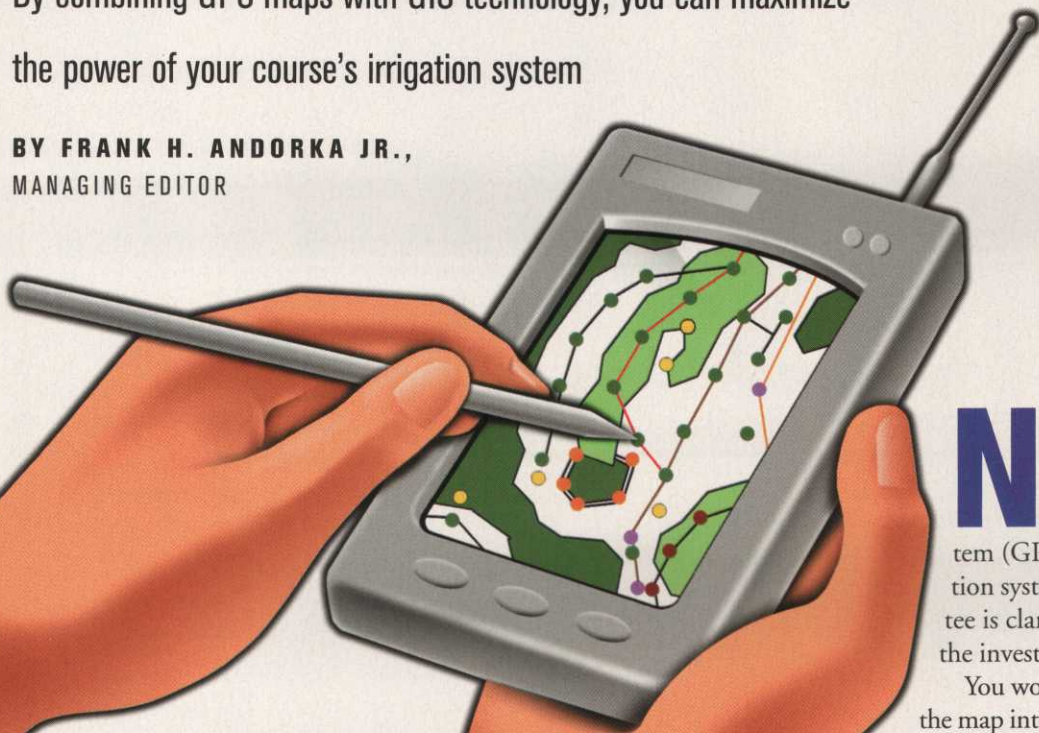
JOHN DEERE

MIKE KUEMME

Possibilities in the Palm of Your Hand

By combining GPS maps with GIS technology, you can maximize the power of your course's irrigation system

BY FRANK H. ANDORKA JR.,
MANAGING EDITOR



Now that your course has spent thousands of dollars creating a global positioning system (GPS) map of your irrigation system, the green committee is clamoring for a return on the investment.

You wonder how you can turn the map into something other than an enormous file that eats up memory on your computer. Unfortunately, you may not realize you're missing a central component that will open up nearly endless possibilities for the map's use. That impressive component, experts say, is the geographic information system (GIS).

A GIS is a computer system capable of assembling, storing, manipulating and displaying geographically referenced information gathered from the GPS. It turns your static

VADIM VAHRAMEEV

GPS map into a tool that potentially allows you to control your irrigation system from your personal digital assistant (PDA). When it's fully operational, a GPS/GIS map allows you to turn individual sprinkler heads on and off by clicking on it with your computer's mouse or your PDA's stylus.

"Most of the courses that have GPS maps don't know the power of the tool as an irrigation-system enhancer," says Paul Granger, president of Aqua Agronomic Solutions, a Clinton, N.J.-based irrigation consultant company. Granger started creating GPS/GIS solutions for golf courses in 1996.

"To allow superintendents to have a product that's useful and relevant to what they do, they need to combine their GPS map with GIS databases," he says. "Then the opportunities to use the information are endless."

Create an accurate base map

Before you can maximize the power of the GIS, however, it's important to have your course mapped by a GPS professional, says Brian Vinchesi, president of Pepperell, Mass.-based Irrigation Consulting. He says the hand-held GPS locators you can purchase at your local electronics store aren't sophisticated enough for the job.

"When you're creating a base map, you want to have someone with the appropriate experience to do this for you," Vinchesi says. "This isn't something an amateur can do as accurately as you need."

Vinchesi says many irrigation consultants can do the job in-house, and there are other companies who specialize in creating these maps (see page 30).

The amount of detail can vary, so superintendents should decide what they want to include before they choose a company to do the job. Jim Nicol, superintendent at Hazeltine GC in Chaska, Minn., says he hired Stratapoint, an Eagan, Minn.-based GPS company, to handle the GPS mapping in conjunction with the PGA Championship, which the course hosts in August. Nicol originally decided to map his course to help him deal with tournament crowd control, but he quickly realized how invaluable a map of his irrigation system could be.

"The maps we had were inadequate," Nicol

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Picking a Contractor

Before you even consider using GPS/GIS on your course, you have to pick the right irrigation contractor. *Golf-dom* asked superintendents for advice about choosing an irrigation contractor. Here's what they had to say:

"Select irrigation contractors with proven track records in your region. Check out past installation references thoroughly. Try to visit a site where they're presently working and see first-hand their performance. Do it unannounced (with the approval of the superintendent, of course) so you can actually see them in action."

• **OSCAR MILES**

CERTIFIED SUPERINTENDENT
THE MERIT CLUB, LIBERTYVILLE, ILL.

"Make sure you visit a recently completed job that was done by the same crew you expect to do your work. Ask how many of the crew members speak English. We had several situations where the foreman was the only one that spoke English. When he went home one weekend, none of the remaining crew spoke English, so it was difficult to communicate."

• **STEVE NUMBERS**, SUPERINTENDENT,
WESTFIELD COMPANIES CC
WESTFIELD CENTER, OHIO

"Hire a contractor with experience in the work you expect to be performed. A contractor who has only done new construction would not work well in a renovation. After all, it's not how much pipe you have put in the ground, it's what the ground looks like two months later."

• **JAY BUCK**, CERTIFIED SUPERINTENDENT,
MEADOWLANDS CC, BLUE BELL, PA.

"Be sure the contractor walks through with you and flags the sprinkler locations. With luck, he or she isn't locked into any one particular brand. Make sure he or she signs off on the work before payment is made."

• **JOHN C. CUMMINGS**
CERTIFIED SUPERINTENDENT
BERRY HILLS CC, CHARLESTON, W. VA.

"Pick a contractor that knows that irrigation installation is a game of angles and not bends. I've seen more pipes break because a joint was forced to fit instead of being tailor-made to fit. A good contractor always wipes excess glue off even if the pipe is 18 inches below the ground. That's a person that takes pride in his work."

• **PAT BLUM**, SUPERINTENDENT
COLONIAL ACRES GC, GLENMONT, N.Y.

"I checked with all the superintendents that I trusted and asked their opinions about who the best contractors were. Then I contacted those recommended contractors and asked them to send me a list of courses they had done. After narrowing the list to the top three contractors, I personally visited one of their facilities. I finally chose a contractor and all the preparation I did paid off. My irrigation system is 2 years old, and I haven't had any problems with it. My contractor keeps in touch periodically to check for any problems I might have."

• **KEVIN GOOLSBY**, SUPERINTENDENT,
SPORTSMAN AT PERDIDO GOLF RESORT,
PENSACOLA, FLA.

"This would go into the category of an irrigation contractor that you would not want to use. I recently served as a consultant in the planning, design and construction of a new golf course. I was in a meeting with a potential irrigation contractor, and we discussed the blueprints and lengthy specification documents that an irrigation consultant and I had spent the previous three months perfecting. After explaining the details of the plan I felt would make my irrigation system different from the average design, the potential irrigation contractor replied, 'Son we have built a lot more golf courses than you, and you have to understand that once the dirt starts moving, these plans go out the window.' While it's true that field adjustments are a fact of life, the comment that the plans are not needed is totally untrue."

• **DARREN J. DAVIS**, DIRECTOR OF GOLF
COURSE OPERATIONS, OLDE FLORIDA GC,
NAPLES, FLA.

Possibilities in the Palm of Your Hand



HUNTER GOLF

A fully integrated GPS/GIS map allows superintendents to control their irrigation systems from anywhere they have a computer with central-control programs, like the Genesis III system from Hunter Golf.

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says. "When we tried to install a new irrigation system in 1998, we were hitting mainlines and branches of the old system left and right because we didn't have an accurate record of where they were. We decided we needed to hire a professional so we could have something we could depend on."

Jason Bass, president of Stratapoint, says the GPS information is only as good as the attributes superintendents specify. The map can be as general or as detailed as they want, he added.

GIS integrates information

Bob Scott, president of Irrigation Consultant Services in Conyers, Ga., says the creation of GIS databases allows superintendents to integrate their GPS data into their irrigation system's central-control program.

Bass recommends a superintendent include specific information about irrigation heads, such as brand name, type of head, repair schedule, water-pressure requirements and other information. The more detail a superintendent provides, the more effective the map will be.

Bass says the same companies that handle GPS can often create your GIS databases as well.

Kevin West, superintendent of Olympia Fields (Ill.) CC, installed his GPS/GIS system in preparation for the 1997 U.S. Open. Since he's a computer buff, he created his own GIS databases and integrated them himself. Now he doesn't go anywhere on the course without carrying the map with him.

"I downloaded the interactive map to my PDA and carry it around with me on the course," West says. "That way, when I see a hotspot beginning or a spot that's being overwatered, the information I need to adjust the system is at my fingertips. It's so much more flexible than a traditional system."

Most irrigation manufacturers now provide software that will allow superintendents to integrate maps into their control systems, though the level of sophistication varies, Scott says. He also suggests superintendents not depend on their local irrigation sales representatives to create the databases because they may

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“I downloaded the interactive map to my PDA and carry it around with me on the course.”

KEVIN WEST
SUPERINTENDENT
OLYMPIA FIELDS (ILL.) CC

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not be able to create maps with the level of detail that superintendents need.

Worth the cost

Vinchesi says the combined mapping and integration costs between \$7,000 to \$50,000, and Scott says the price should range between 7 percent and 12 percent of the overall cost of the irrigation system. Granger says the average cost is around \$15,000.

“People believe it’s much more expensive than it is,” Granger says. “It varies by system and intricacy, but you can build a pretty powerful map for a fairly small investment.”

Scott says most maps pay for themselves in two to three years. If you don’t map your course now, however, you’re going to regret it in the long run, says Matt Shaffer, superintendent at Merion GC in Ardmore, Pa.

Shaffer originally mapped his previous course, The Country Club in Pepper Pike, Ohio, so he could find its 258 gate valves. Prior to mapping them, Shaffer often had to guess at their location. The interactive map allowed him greater control over the system than he could have imagined.

“It’s an incredibly powerful tool that allows you to manage your water more effectively and save your course money,” Shaffer says. “If you’re spending \$900,000 on an irrigation system, why wouldn’t you spend the extra 2 percent to 3 percent to make it as effective as possible?”

Shaffer says he doesn’t believe members fully understand the potential savings in labor, energy and water expenses over the life of a system. When superintendents propose creating such maps, many members think of them as luxuries. Shaffer insists they’re necessities instead. “Superintendents have to be ready to overcome the objections of members because members will often nickel-and-dime them to death,” Shaffer says.

Granger says it will be a slow process, but he thinks GPS/GIS mapping will eventually become an industry standard on most courses.

“The power of GPS/GIS maps is beyond the dreams that most people have for them,” Granger says. “We have to educate superintendents about how the maps will help them before they’ll be generally accepted in the industry.” ■



ILLUSTRATION COURTESY OF IRRIGATION CONSULTING

Each sprinkler head becomes a point on the map, easily activated on a PDA with the touch of a stylus.

For more information on GPS/GIS solutions, see these companies:

- **CompassCom**
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www.compasscom.com
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