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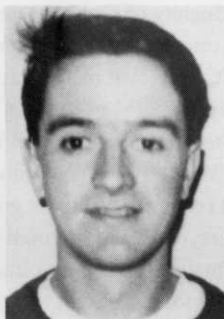
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James E. Bond, a native of England, was awarded the 1991 Musser International Turfgrass Foundation's graduate scholarship to complete studies that are "of tremendous benefit to turfgrasses," according to Dr. Lloyd M. Callahan, a University of Tennessee professor in charge of a DNA research program in the department of Ornamental Horticulture and Landscape Design.



James Bond

As a direct result of Bond's work, "highly desired traits such as cold-hardiness, herbicide resistance, disease resistance, among others, can be introduced into desired turfgrasses that do not possess this trait," wrote Callahan in nominating Bond for the scholarship.

"This technology is essential for genetic engineering of plants and the related improvement of crop species," echoed Dr. Peter M. Gresshof, who holds the Racheff Chair of Excellence in plant molecular genetics at the University of Tennessee. "(Bond's) progress has been excellent despite the intellectual and scientific challenge of the research."

The Musser International Turfgrass Foundation was formed by graduates of the turfgrass programs at Penn State University to fund basic turfgrass research through fellowships to outstanding graduate students completing their doctoral work in turfgrass science. It honors the late Dr. H. Burton Musser, turfgrass researcher and educator who developed Penncross creeping bentgrass during his four decades at Penn State.

The organization is funded primarily by contributions from individual golf course superintendents and grants from companies in the turfgrass industry.

Legislature OKs matching \$350,000 for Envirotron

As expected, the Florida Turfgrass Research Foundation has received \$350,000

in matching funds from the State of Florida for its new Envirotron research facility.

"What made the funding announcement even better was the positive spirit in which the money was awarded," said Bob Yount, executive director of the FTRF and its parent organization, the Florida Turfgrass Association. Yount said he received several indications that legislators genuinely recognized the critical need for an advanced research facility.

The Envirotron — a facility combining a rhizotron, phytotron and laboratory — will become the state's first designated "Environmental Research Unit." It will be built on the University of Florida campus at Gainesville.

Top scientists will be recruited to join UF researchers to investigate many basic questions, including the effects of pollutants in groundwater; the effects of herbicide, fungicide and pesticide on the environment; the breeding of new grasses requiring less water; and the furthering of biological control methods for turfgrass pests.

Water conservation strategies, including the use of recycled water for irrigation, also will be investigated.

The university's Land and Engineering Division will examine three possible sites for the Envirotron.

According to Yount, the early favorite is a site just west of the main campus, next to the entomology and nematology building and across the street from Fifield Hall, which houses the Environmental Horticulture Unit.

Utilities already exist at that site, according to Yount.

Whichever site is selected, construction could begin by late this summer and should take no more than 18 months.

The FTGA was able to raise its \$350,000 share "because of a unified funding campaign through the effort of FTGA members, Florida Golf Course Superintendents Association and many other private organizations, clubs and individuals," Yount said.

"We really appreciate the efforts of the various FGCSA chapters and members who helped us reach our goal.

"This effort was possible only because of the desire of all those in Florida's turf in-

dustry to advance the industry without sacrificing Florida's sensitive environment or natural resources.

"Accurate scientific data will now be available to all Floridians who want a green Florida but not at the risk of damaging our environment."

Pioneer Florida architect Mark Mahannah, 85, dies

"I've never seen a hole I couldn't get an eight on," was the way Mark Mahannah, one of Florida's leading golf architects in the post-war construction boom, described his playing prowess.

The prolific superintendent-turned-architect, who designed playable golf holes that probably yielded more pars than eights, died at his home in Nakomis March 18.

Charles Mark Mahannah Sr. was 85.

A native of Delta, Iowa, Mahannah came to Florida as a small child in 1910. His

family was one of the early residents of Fort Lauderdale. He attended the University of Florida and began designing courses in 1946.

Mahannah died with more than 80 course designs to his credit, according to the American Society of Golf Course Architects. He was one of the pioneer members of the ASGCA, elected in 1961 and named a Fellow in 1976.

The Golf Course by Geoffrey Cornish and Ron Whitten, the generally accepted standard reference work for golf course architecture, credits Mahannah with 46 original designs in Florida and another 13 major renovations. (See list, opposite page.)

Mahannah's first job was on the construction crew for William S. Flynn at Boca Raton Hotel and Country Club. He later was on the maintenance crew at Miami Biltmore Country Club, becoming its head greenkeeper in the early 1940s. The club was closed during World War II, and Mahannah spent the duration as a techni-

cal adviser on turf problems at a U.S. Army post in Pinellas County.

After the war, he renovated one 18 at Miami Biltmore, which reopened as Riviera Country Club, and then served as its superintendent.

His experience at restoring the course led to other contracts, which he handled part-time until the early 1950s, when he resigned to practice design full-time.

Survivors include two sons, architect Charles Jr. and Gary; a daughter, Suzanne; seven grandchildren and five great-grandchildren.

P.J. Boatwright, USGA's 'Mr. Rules,' dead at 63

P.J. Boatwright, Jr., executive director for rules and competitions of the United States Golf Association, died April 5 in Morristown, N.J. after a six-month battle with cancer. He was 63.




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Ocean Reef Club (Dolphin)	
Key Largo	1951
Key Biscayne Hotel GC	
Miami Beach	1954
Plantation Hotel GC	
Crystal River	1958
Rio Pinar CC	
Orlando	1958
Kings Bay Y&CC	
Miami	1959
Lake Venice CC	
Venice	1959
Lost Tree Club	
Singer Island	1960
Royal Palm Beach G&CC	
Royal Palm Beach	1960
Homestead AFB GC	
Homestead	1961
Sandpiper Bay CC (Sinners)	
Port St. Lucie	1961
Key Colony GC	
Key Biscayne	1962
Residential CC	
North Miami Beach	1962
Greynolds Park GC	
Miami Beach	1964
Haulover Beach GC	
Miami	1964
Okeechobee G&CC	
Okeechobee	1966
Sun City Center G&CC (South)	
Sun City Center	1967

Boca Teeca CC	
Boca Raton	1968
Cocoa Beach Municipal	
Cocoa Beach	1968
Indian Trail CC	
Palm Beach	1968
Calusa CC	
Miami	1969
Jacaranda CC East	
Plantation	1970
Mirror Lakes CC	
Lehigh Acres	1970
Fountainbleau Park CC	
Miami	1971
Miles Grant CC	
Stuart	1972
El Conquistador CC	
Bradenton	1973
Jacaranda CC West	
Plantation	1975
Jacaranda West CC	
Venice	1976
Isla del Sol GC	
St. Petersburg	1977
Fountainbleau Park West	
Miami	1979
Ventura CC	
Orlando	1980
Caloosa CC	
Sun City Center	1981

Hillcrest East GC	
.....	?
Renovations	
Biltmore Hotel (Riviera CC)	
Coral Gables	1946
Naples Beach Hotel	
Naples	1953
Riviera CC	
Ormond Beach	1954
Hollywood Beach Hotel CC	
Hollywood	1955
Westview CC	
Miami	1955
Tarpon Springs CC	
Tarpon Springs	1957
Crystal River CC	
Crystal River	1958
Everglades Club	
Palm Beach	1958
Gulfstream GC	
Delray Beach	1960
Sun City Center North	
Sun City Center	1972
Palma Ceia G&CC	
Tampa	1979
Normandy Shores GC	
Miami Beach	?
Port Charlotte CC	
Port Charlotte	?

Source: The Golf Course and Golf Guide to the South



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One of the most prominent and influential personalities in golf, Boatwright is perhaps best known to golf course managers as the man who personally supervised the preparation of golf courses for USGA championships and who personally selected the pin placements each day.

A native of Augusta, Ga., he grew up in Spartanburg, S.C., and became an accomplished player, winning the Carolina Amateur in 1951 and the Carolina Opens of 1957 and 1959. He played in four U.S. Opens, making the cut at Merion Golf Club in 1950, the site of Ben Hogan's comeback from serious injuries suffered in an automobile accident.

He left his post as executive secretary of the Carolina GC in 1959 to become assistant director of the USGA. He was named executive director 10 years later, succeeding Joseph C Dey Jr., who had resigned to become first commissioner of the PGA Tour.

Ironically, Dey succumbed to a long illness less than a month before Boatwright died.

Boatwright is survived by his wife, Nancy;

two daughters, Cindy and Carolyn; a son, P.J. Boatwright III; and three grandchildren.

Governor considers water tax; could cost each course up to \$30,000 annually

A water tax proposed by the Florida Legislature would have a "staggering" effect on the state's golf industry, according to Bob Yount, executive director of the Florida Turfgrass Association.

The proposal calls for a 10-cent tax on every 1,000 gallons over a water-user's allotment, with the money funding water conservation studies and practices. Courses using effluent would not be affected.

"I think it's an idea we've got to pursue and see what the implications are," said Lt. Gov. Buddy MacKay in an Associated Press story May 12.

A proposal for a similar tax was shot down by Florida lawmakers this year. That proposal's sponsor, Rep. Sandy Safley, R-Clearwater, met with Gov. Lawton Chiles and MacKay early in May.

"The governor thinks water will be the issue of the decade and seemed very supportive of the fee idea," Safley said.

Raymon Finch, owner and developer of Emerald Dunes GC in West Palm Beach, said the bill is aimed primarily at the agricultural industry, the state's biggest water user, but will cost most Florida courses an additional \$20,000 to \$30,000 annually.

"We're opposed to (Safley's) bill," said Bobby Brantley, executive director of the Florida Golf Council. "Its supporters hope the tax will encourage golf courses to speed up the process of hooking into reclaimed water systems.

"We want to do everything we can to help conserve water. But we don't want the state mandating that everyone use reclaimed water when there isn't enough available. It's not fair to begin taxing courses if the reclaimed water isn't there."

The Florida Golf Council favors further study on the availability of effluent use before imposing any new taxes. At the very least, Brantley expects the state's water management districts to soon begin requiring courses to use reclaimed water

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where it's available. A new tax, while not a certainty, is a definite possibility, he added.

Finch and Brantley fear any new tax would not stay at 10 cents very long.

"I was in the Legislature for eight years and served as lieutenant governor for four," Brantley said. "In my experience, it's very rare that a tax is ever replaced or reduced. Once it's on the books, the only way it usually goes is up."

"We need to conserve water," Yount said. "We don't oppose a tax as long as it is equitable."

Making the tax equitable requires taking a course's seasonal watering needs into consideration, Yount said. Monthly allotments should be higher when courses traditionally need more water — during the summer, while overseeding or when growing in new grass — and lower when the need drops.

The state's water management districts and the Legislature have been very cooperative, Yount said.

"We've met many times. It's a foregone conclusion we must consider something like this to conserve water," he said. "But the golf industry produces a lot of revenue. People are starting to realize the importance of golf to the state. We want to be viewed as part of the solution, not the problem." (*Adapted from Golf Course News*)

Alabama state employees investing retirement funds in public golf courses

When Bobby Brantley has secured the golf industry's water flank, another project awaits the executive director of the new Florida Golf Council: encouraging the state to get more directly involved in golf course development.

For instance, Alabama state employees are investing some of their retirement funds in the construction of 12 championship-caliber courses around the state.

"This project represents a major breakthrough for Alabama golf," said Dr. David Bronner, CEO of Retirement Systems of Alabama. "We've known for a long time that golf courses are a sound investment, so we've taken a leadership role in their development and construction.

Each site will feature three courses —

two regulation-length and one par three for a total of 54 holes. The courses are scheduled to begin opening this fall.

Development of the golf courses fits Bronner's overall goals for the state.

"Our priority is to improve the quality of life and attract more tourists and retirees to Alabama... and golf is the ideal means to achieve our objectives," he said.

To oversee its golf development business, RSA formed Sun Belt Golf, Inc., which is headed by former golf pro Bobby Vaughan.

"Each facility will be capable of hosting a major championship event," Vaughan says. "We're not building public courses, but great courses the public can play on."

Sun Belt Golf, which constructs, owns and operates the courses, has been successful in having municipalities and developers donate land at each site. "We haven't had to buy an acre yet," Vaughan says.

As an example, he points to the 8,000-acre Birmingham site donated by U.S. Steel. Once the land was secured, the city of Birmingham provided the infrastructure, including roads and sewage treatment. Other land has been donated in exchange for the option to build housing.

Each site is unique, according to Roger Rulewich, chief designer for Robert Trent Jones Sr.

"In designing each of the 12 courses, we highlighted the area's outstanding natural beauty," said the former president of the American Society of Golf Course Architects.

While the first 12 courses are under construction, Sun Belt President Vaughan continues discussions with other municipalities and developers for the construction of additional Alabama courses.

But they may not stop at the border.

"We have the financial backing, architectural team and experience to expand the program nationally," said Vaughan. "We hope someday soon, golfers in every state will be able to tee it up at a local course while contributing to the retirement funds of Alabama state employees."

Perhaps the administrators of Florida's retirement funds should take a long look at the Alabama model and put the state's \$5.5 billion industry to work for Florida employees.

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Robert Trent Jones Jr. moved two million cubic yards of dirt at Weston Hills CC in western Broward County to produce a very playable golf course in his first Florida effort.

Jones gets it

BY KIT BRADSHAW

Robert Drake is just about the happiest man you're going to find.

His "office" is Robert Trent Jones Jr.'s first golf course in Florida: Weston Hills Country Club west of Fort Lauderdale.

During his career, he has had the opportunity to grow in three

different Florida courses.

And he is working to get a junior program at Weston Hills using three outlying holes so kids like his sons, Matthew and Thomas, have a place to learn the game.

Things couldn't be better for this Indiana-born golf course superintendent.

He's particularly happy about his involvement with Jones during the



right the first time

construction of Weston Hills. It gave him the chance to make suggestions on the final shaping, and some of the characteristics of the course reflect his input to the architect.

"I'd ask Bobby to gentle a grade so I could mow it easier, and if he could, he would do it," Drake says. "If it interfered with the shot values, then he would keep it the way it was. The important thing from my standpoint is that Bobby took the time to listen.

"Gary Linn (Jones' senior designer) says Bobby spent more time at this course than any he's done in the last three to five years," Drake says. "His dad practically lives in his back yard down here, and Bobby wanted to do this course particularly well. I was lucky to be involved so early in the construction process and have a chance to work with Bobby."

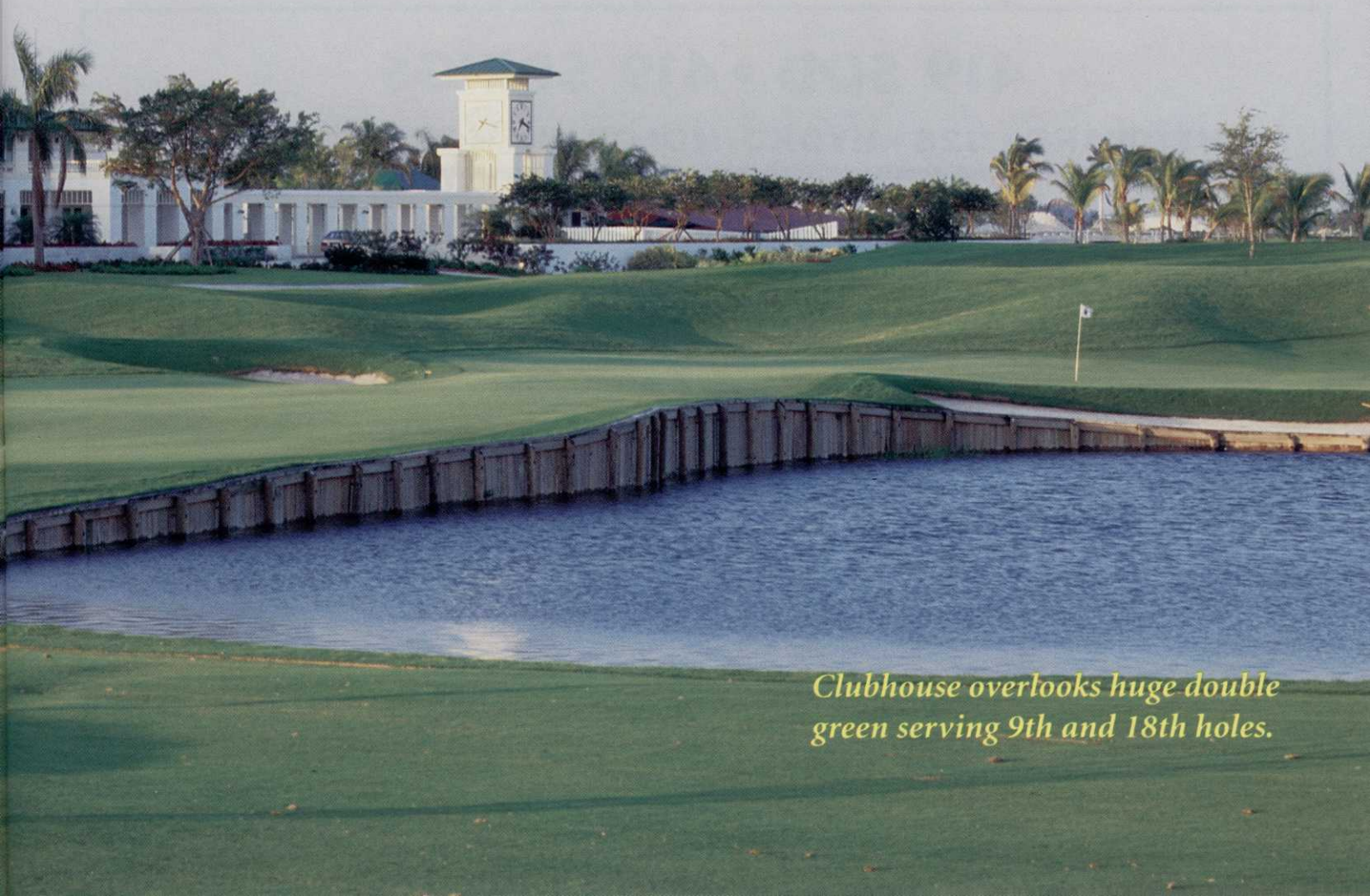
From a golfer's point of view, Drake likes the Weston Hills

course.

"I've been on a lot of golf courses in the area, and on some of them, each four-par looks a lot like the one you played before. Here, every hole is distinctive. It's a refreshing situation to be in.

"And Bobby made this course so people can really play on it. You don't have to carry impossible shots over water like you do on some courses.

"Even though Bobby started with essentially flat property and moved



Clubhouse overlooks huge double green serving 9th and 18th holes.

close to two million cubic yards of dirt, the course looks as though it's been here quite a while.

"We've got 75 sand traps, ranging in size from 800 square feet to about 15,000 square feet and water on 11 of the holes. The course kind of lulls you for the first four holes—there's no water on them—and then there's water on the rest of the nine, and on five of the back holes.

"Actually, the water on 5,6,7,8 and 13,16, and 17 is all the same lake. It's kind of a moat around the property. That makes the course really interesting."

Weston Hills is Drake's third opportunity to be involved with construction of a course. After attending Purdue University and then graduating from Lake City Community College, he worked briefly at Deer Creek Country Club before helping to build the executive course at Boca Del Ray in Delray Beach.

In 1984, Drake went to Stonebridge Golf and Country Club in Boca Raton, where he

helped build and grow in that course.

For a short time, he worked for Aquaturf but, as he says, "I discovered I couldn't function without a farm to take care of."

His "farm" is now Weston Hills Country Club, where he and his staff of 20 take care of the golf course area and the common grounds of the community.

Despite some severe slopes at the course, Drake says Weston Hills is not an overly difficult course to maintain.

"We have 419 bermudagrass on the tees, fairways and roughs and Tifdwarfbermuda on the greens, with bentgrass overseeding in the winter," Drake says. "For the most part, the course is pretty straightforward. On the severe slopes, the crew uses 21-inch, self-propelled rotary mowers. With a two-cycle engine, they can run on an angle without damaging the motor.

"One of the things that makes the course easy to maintain is the way it was designed to allow for homes, but without the tunnel effect you get on a lot of courses that have

homes on both sides, or water on one side and homes on the other. The homesites were planned so that they are inside the course, and almost all the houses have a golf or lake view or both. But they look across two or three holes. They have the view, but they aren't right against the course," Drake says.

"This means that the golfers don't have to alter a shot because the homes are along one side. At some courses, you are afraid if you slice the ball, you'll wind up in someone's swimming pool."

Drake says the location of homesites allowed Jones to create parallel holes. "It not only makes it easier to pull a gang mower through these holes, but it gives the course a nice feel — like you get when you play some of the older courses up north," Drake says.

To keep the course irrigated, Drake has 1800 irrigation heads and 104 satellite clocks, about double the number of heads he has operated on other courses. The irri-

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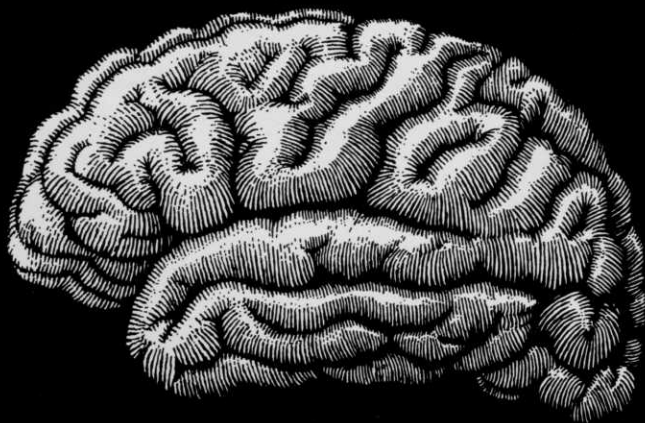
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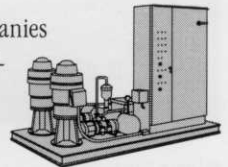
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Robert Drake

Age: 35

Education: Attended Purdue University
Graduated from Lake City Community College

Current Position: Golf Course
Superintendent Weston Hills Country Club, Fort Lauderdale

“...when you’re trying to get a course playable in the short time they want it, then your involvement in organizations begins to deteriorate. I think the guys in the association understand this.”

Previous employment: Assistant superintendent Deer Creek Country Club, Deerfield Beach; superintendent Boca Del Ray, Delray Beach; superintendent Stonebridge Golf and Country Club, Boca Raton; director of golf course construction for South Florida Aquaturf

Personal: Married 14 years to Kristy, real estate salesperson for Stonebridge; Two sons — Matthew, 9 and Thomas, 6

gation system not only waters the 18 holes that make up the Jones course, but three additional holes at Weston Hills.

These three holes — a three-, four- and five-par — were put in ahead of schedule to add to the aesthetics of the entryway, but Drake sees them as an ideal spot for junior golfers.

Drake also had a few more immediate and long-term goals.

For one thing, he would like to become more active with the FGCSA. “I was involved before I came to Weston Hills, but when you’re trying to get a course playable in the short time they want it, then your involvement in organizations begins to deteriorate. I think the guys in the association understand this. But now that the tough stuff is out of the way, I can participate more.”

He’d also like to upgrade his facilities at

Tunnel between 9th and 10th holes provides visual interest.

