

Quarry Hills calls globetrotting Kessener back to his roots

QUINCY, Mass. — After roaming the globe building golf courses most of his life, Massachusetts native Gary Kessener, 42, has returned home to oversee construction of one of the most ambitious golf projects ever undertaken in the United States — Quarry Hills Golf Course.

"It's a fascinating project," said Kessener of the 27-hole John Sanford-designed layout being built over three former landfills, a few miles from downtown Boston. "It's great to be able to do something like this where I grew up."

Quarry Hills developers Chick Geilich and Bill O'Connell reviewed more than 50 resumes and interviewed a half-dozen applicants before selecting Kessener. "We needed someone who had extensive grow-in and building experience," Geilich said. "Gary fit the bill. He's built 30 or more courses and started out running a bulldozer and planting trees by hand. He's been



Gary Kessener, superintendent of the Quarry Hills course, with the Boston skyline just visible in the distance

soccer fields and baseball fields on the site of the former Quincy landfill. The city signed a 50-year lease with the developers to close the landfill and build the recreation facilities.

Geilich and O'Connell then signed a similar agreement with the town of Milton, which needed

This led to a public-private partnership with the Massachusetts Highway Department's Central Artery Group, calling for delivery of more than 12 million tons of excavate (as many as 1,200 truckloads daily) from the "Big Dig," a gigantic highway and tunnel project designed to improve traffic flow through Boston.

Trucks have delivered more than 800,000 loads of excavate to the site, with the material used to sculpt the course, learning center and athletic fields. The tipping fees paid by the state for the Big Dig excavate are helping to pay for the project, expected to open in 2002.

The course is located on high ground just seven miles from downtown Boston. It overlooks

the entire city to the north, Boston Harbor and the islands to the east, and the 30,000-acre Blue Hills Reservation wilderness park to the west and south. Roughly 360 townhouse apartments and a hotel/conference center also are planned.

GLOBAL EXPERIENCE

Golf construction has been part of Kessener's life since his early teens. He spent summers in California, where he helped build greens on a course near his summer home. He graduated from high school in 1978 and went to work for his brother-in-law, who had a landscape business in California.

Kessener also worked on several courses, including Carmel Mountain Ranch in Temecula and Desert Falls Country Club in Palm Springs. He helped install Toro's first VT-1 irrigation system at Bixby Village in Long Beach.

He later worked as project supervisor for golf architects David Rainville, Ronald Fream and Greg Norman, doing the early leg work and overseeing construction projects in Japan, Taiwan, Korea, Thailand, Malaysia, Indonesia, Argentina, France, Portugal and Tunisia. He even started his own firm, Golf Planning Management Construction Services,

located in Kota Kinabalu, Malaysia.

LANDING THE JOB

Kessener kept in touch with his roots, flying back to Cape Cod yearly to visit relatives. Two years ago he noticed a sign announcing the Quarry Hills project. He later saw an ad seeking a superintendent for the project, contacted Geilich and was hired in November 1999.

Kessener believes the developers hired him based on his extensive construction experience. "Many of the Asian projects I was involved with were on an even larger scale than this one," he said. "It didn't overwhelm me. My ability to see light at the end of the tunnel helped me land this job."

WAITING FOR SNOW TO MELT

Kessener estimated 95 percent of the 12 million tons of fill material from the Big Dig was on site as of late December. At that time, 1.5 million cubic yards of material were stockpiled under the snow waiting to be spread.

Snow has occasionally slowed progress. When that happens, workers have redirected their efforts to filling in one of several quarries. Between 300 and 500 trucks continue to bring fill daily.



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SUPERINTENDENT IN THE SPOTLIGHT

all over the world but grew up in New England, so he also understood the peculiarities of our weather and conditions."

GENESIS OF QUARRY PROJECT

Geilich and O'Connell first approached Quincy Mayor James Sheets in 1991 with the idea of building a golf course,

to close its landfill, which bordered the Quincy property.

Abandoned quarries, wetlands and historical sites also had to be dealt with. The developers accumulated a 540-acre parcel that included three landfills and some private property.

12 MILLION TONS OF FILL

'Manufactured' topsoil solving many problems at Quarry Hills GC

QUINCY, Mass. — With native topsoil both expensive and scarce, Quarry Hills is manufacturing its own topsoil to cover much of the 27-hole John Sanford-designed course under construction in suburban Boston.

Manufacturing its own topsoil? That's right.

Working with Falmouth, Maine-based New England Organics, Quarry Hills is mixing sand, organic pellets and short paper fibers (SPFs) — recovered paper fibers generated by paper mills — to produce a high-quality loam that is erosion-resistant, weed-free, water-retentive and about 40 percent less expensive than native topsoil, according to superintendent Gary Kessener.

Quarry Hills is covering three landfills with more than 800,000 truck loads of excavate from the tunnel under construction in Boston known as the "Big Dig." The configuration of the landfills, coupled with the large amount of fill, has created steep slopes on the site.

"The idea was to find a way to stabilize all these slopes and retain moisture to promote plant growth," Sanford said. "This has proven to be very useful and cost effective, and it provides a way to use recycled product."

TRADEMARKED AS BIOMIX

During the manufacture of paper, wood is



Manufactured soil, using paper fibers, helps reduce erosion. Eroded ground in foreground is normal topsoil.

chipped and processed, with the longer fibers extracted to make paper. Fibers too short to use become a waste product. At Quarry Hills, one part short paper fibers are being mixed with one part sand and a quarter part organic slow-release fertilizer pellets produced at a nearby sewage treatment plant. The result is an organically enriched material New England Organics has trademarked as BioMix.

The short paper fibers provide valuable organic matter that improves soil structure, retains

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Selecting a bentgrass cultivar for greens takes research

By KEVIN ROSS

When Penncross bentgrass first became available in 1956, little did anyone know the standard this grass would set for more than 40 years. Penncross is still the best-selling bentgrass in the world — more than a million pounds are sold annually worldwide — but slowly things are changing.

Today's bentgrass market has more than 30 to choose from. With this many cultivars the question arises: which one should you choose?

A good starting point is the National Turfgrass Evaluation Program, or NTEP. Throughout the United States, turf trials are set up at various universities. These bents are evaluated and results are compiled and published.

What does this data tell you? Should you just select what's rated number one? No, this data is merely a starting point. Maintenance practices are different at each NTEP site, so it is important to know a few of the vital inputs, such as mowing heights, topdressing frequency, cultural practices, fertilization amounts and watering.

RESEARCH ON THE INTERNET

At the NTEP Web site (www.ntep.org), you can dig into data that will help you to see if a bent is suited for your region. The best way to look at bents that may perform for your conditions is to compare test sites that match your situation. This gives a better idea of its performance related to your conditions.

Also, on the Web site, you can compare how bents will

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Topsoil

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moisture and increases nutrient-holding capacity. Additionally, because it is a mixture of sand and tree fibers, the manufactured soil is weed-free, unlike traditional loam.

But one of the biggest advantages, particularly on a steep site like Quarry Hills, is the ability of the paper fibers to stand up to heavy rains that would normally wash away large amounts of topsoil and seed. The manufactured soil even outperforms erosion-control blankets often placed over newly seeded areas, Kessener said. A half-acre test slope planted at Quarry Hills has remained lush and weed-free, while a neighboring slope covered with regular topsoil has been eroded and dominated by weeds.

"This material could save builders a lot of money," the Quarry Hills superintendent said. "The top six inches become almost sponge-like, absorbing and holding water. If you put it in unirrigated areas that's a big benefit."

SEED GERMINATION QUALITIES

In addition to its application on Quarry Hills' dramatic side slopes, BioMix will be used in the fairways. Kessener is spreading roughly 1.5 inches of the manufactured soil over the 10 inches of existing fairway soil and then rototilling it down to a depth of six inches. The only place BioMix won't be used is on greens and tees.

The manufactured soil costs \$5 to \$6 per yard, about 40 percent less than the \$10 to \$15 per yard for traditional loam. And it is mixed on site.

"It's quite incredible," said Quarry Hills developer Chick Geilich. "We've done a lot of experimenting with this material and have come up with a mixture that works quite well."

Grass seed germinates more slowly in the BioMix soil than in traditional soil, lagging behind by three to seven days, according to New England Organics business development specialist Pat Ellis. But it catches up within several weeks. And the erosion resistance of BioMix means far more grass seeds eventually germinate than with traditional loam, he added.

PROXIMITY TO SOURCE CRITICAL

Transportation is the major cost. "Trucking anything a long distance can kill you financially," Sanford said. "To be cost effective you have to be within a reasonable distance of a paper mill."

Paper companies are abundant throughout most of New England, New York, Michigan, Wisconsin, Alabama and the Pacific

Northwest, making manufactured soil a potential product for those areas.

At Quarry Hills, Kessener is using 80,000 cubic yards of BioMix on the side slopes and 22,500 yards on the fairways.

Ellis estimates New England Organics could provide 200,000 to 400,000 yards of material annually. ■

Bentgrass

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perform in your area. For example, if your biggest disease problem is dollar spot, then the ratings for dollar spot injury may be one of your top concerns. Should it be your only concern? Definitely not. Selecting bents based on one or two categories

is a mistake. Look at all the categories, but give less weight to something that doesn't bear directly on you.

For example, when I selected Penn A-4 in 1996 to use in resurfacing the greens at Country Club of the Rockies, some performance characteristics were largely irrelevant. Having very little disease pressure, I wasn't

concerned about disease resistance. I was more interested in its drought performance, due to our extremely arid summer conditions; and winter survival, due to our intense winter season.

COOL AND WARM SEASON TESTS

Other information now available is the research being conducted jointly by the USGA,

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N'west drought

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power utilities are attempting to work out now, to make sure that all needs are balanced and maintained as much as possible."

"It's not fair to us in the Northwest, when somebody wanting to turn on a hot tub in California does it without fear of paying increased costs," said Rep. Jennifer Dunn, R-Wash.

'DOMINO EFFECT'

As golf course superintendents in the Northwest fire up their irrigation systems full steam for the peak summer season, California superintendents are awaiting to see how their own operations will fare this season. The Bush administration has rejected the idea of placing price controls on wholesale electricity sold to western states.

"As far as Bush saying that

California can take care of their own problems, well, we can," said Ken Schwark, superintendent at the Roddy Ranch Golf Club in Antioch, Calif. "We have the money. But the thing is, people need to realize that if California goes under because of this energy crisis, so goes the rest of the nation." California is a vital part of this nation, he said, with its agriculture, business, technology, and even Hollywood. ■

Bentgrass

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GCSAA and NTEP. This research endeavor has set up test greens at 16 locations throughout the United States. There are eight test greens set up in cool-season locations that focus on bentgrass only. There are also eight other test green locations, which are set-up in warm-season/transition zone areas. Of

these eight, five areas include bentgrass test plots.

A total of 18 bentgrasses are included on each of these test putting greens. The greens are in use as practice putting greens, so they get some traffic. These greens are not used as part of play, so factors such as ballmarks are not evaluated. One of the main goals of this research is to compile regional data that will help in the selection process.

TEST GREENS

What else can be done to select the proper bentgrass for your site? If you have time, set up your own test green. The best example I've seen was at the Vintage Club in Palm Springs, Calif.

In 1996, while I was in the process of bentgrass selection, I visited Doug Anderson, superintendent at the Vintage, to discuss his selection of Penn A-4. Doug had set up a test practice green and watched the performance of eight different bentgrasses over a one-year period, before making his final selection.

The advantages of building a test green are numerous. First, you get to watch it under your exact conditions. You also get to dictate the maintenance regimen. Things such as cutting height, watering practices, traffic, fertilization and topdressing can all be tailored to the desired level of turf quality. Also, you can evaluate the putting quality.

OVER-WINTERING IN COLORADO

In my selection of Penn A-4, I was concerned with its ability to survive the tough winters in Vail, Colo. I ran my own winter survival test on two test plots, each 10 feet by 10 feet.

In the first test plot we shoveled all snow off throughout the winter as a desiccation test. On the second plot we poured on water and built an ice layer about 10 inches thick to test for ice-related injury.

The following spring we were able to evaluate how Penn A-4 would over-winter in our climate. With no turf setback that spring, this was the final piece to the puzzle in selecting this grass for our course.

With the greater popularity of these new bentgrasses, we now have many real-life experiences to examine. When I selected Penn A-4, there were only a half-dozen golf courses using it at the time.

The combination of the NTEP data, research greens, superintendents' experiences and some testing on your own can insure you of a proper bentgrass selection for your situation.

Kevin J. Ross is director of golf course management at the Country Club of the Rockies and a regular contributor to *Golf Course News*.



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