



Russell Geiger: "It was a very, very large project. So much had to be done, I had my reservations."

created a stagnant, non-circulating water-management system.

"The project was drainage driven," Forse says. "The property was settling, while the water table was rising.

"Our goal was to make it drain better, but not change the character of the property," he says. "Don't stop looking like Dick Wilson's work."

To improve water quality and storage, lakes were deepened and an 8.5-acre lake was constructed. The excavated fill from these lakes was used as fill required to raise the elevation on each hole. By raising the relative grades throughout the project and expanding the acreage of available water storage, the course can now retain an additional 25 acre-feet of water.

The new drainage infrastructure also has improved the circulation of water

within the project. With these improvements, the course can now retain all storm water runoff within the property, which prevents any turbid water from entering the adjacent environmentally sensitive river basin.

The creation of a new lake, as well as deepening of two others, generated the fill material used to elevate the course out of the floodplain, while restoring the landforms and character of the original design. The state-of-the-art storm water drainage system incorporates the creation of separate drainage basins which stage the water elevations to maintain and improve the extensive cypress wetland preserves found throughout the golf course.

Interconnecting culverts were installed to prevent localized flooding and control structures were built to

hold water in storage for treatment prior to eventual discharge into the adjacent Gordon River. A network of secondary drainage was installed to collect water from greens, bunkers and fairway depressions, with disposal into the lake system.

Greens and bunkers

Because the course played at only 6,200 yards, the small, crowned, "push-up" greens originally designed by Wilson worked well – adding difficulty to a short course. The restoration was stretching the layout to 6,800 yards, though, so there was a need for larger green surfaces on some of the holes.

Forse's artistic expression came into play while otherwise adhering to Wilson's routing and feature design criteria, creating more receptive contours and

pin placements on USGA Greens. Champion Bermudagrass was installed, which allows Geiger's staff to maintain greens height to PGA tournament speeds if members so desire.

Bunkers are an important aspect of a Wilson design. He believed that golf in the United States was an aerial game and if you wanted a ground game "you could go bowling." Over the years, changes in maintenance practices, as well as the many adjustments made by different architects, led to the bunkers losing their appeal, shape and proper positioning. Restoration was a key objective in the project.

Studying old plans and photographic information, the team returned Wilson's signature design of numerous, well-placed, highly visible bunkers that create challenges off the tee and demanding shots to each green. All of the greenside bunkers were rebuilt and repositioned using his distinct "flushed" faces, while irregular sand edges were created to make the bunkers distinct.

Again, artistic expression gave the bunkering a different look and feel than was in place prior to the redo. Forse used a more ornate bunker style from Wilson's later work, like that seen at Pine Tree Golf Club in Boynton Beach, Fla.

A perforated drainage system was installed and premium bunker liner materials were used to protect the expensive pure, white, angular bunker sand. In addition the bunker edges were meticulously carved by hand to bring back the look of a Wilson design.

Landscaping

Turfgrass growth and maintenance were hindered by a multitude of non-native, exotic plant species found throughout the course. To improve air circulation and sunlight, this had to be removed, which led to undesirable views of the nearby, busy roadway.

When Hole-in-the-Wall was originally built, the adjacent road was a two-lane shell surface in a very rural area. Today, it is a major, six-lane urban road. A great deal of the fill generated from the lake construction and deepening was used to create a well-landscaped, 6-to-8-foot-tall berm with an additional 6-foot wall above it to block out any views and buffer noise from the roadway.

Removal of all exotics and the relocation of many mature trees improved the aesthetics and provided major strategy for Forse's redesign. According to Geiger, more than 500 "high-character" Sable palm trees and 30 oak trees found new homes during this process.

"The value of this material is priceless," Geiger says. "It was a win-win deal from a cost and preservation standpoint. And it was almost instant gratification from a landscaping point of view. With the exception of braces, it looked very natural right out of the chute."

Finished Product

In today's environment, coming in below budget and ahead of schedule is rare, but that's exactly what Ryangolf managed at Hole-in-the-Wall. While the project was optimistically scheduled to be unveiled in early 2010, the first tee

2010 heritage award winner

HOLE-IN-THE-WALL

Location: Naples, Fla. **Type of project:** Renovation **Cost:** \$4.9 million **Construction started:** June 1, 2009 **Construction ended:** Oct. 1, 2009 **Architectural firm:** Forse Design **Builder:** Ryangolf Corp. **Superintendent:** Russell Geiger, CGCS

shot on the "new course" was struck Dec. 16, 2009. Favorable weather played a major factor in that.

"In south Florida, you can find yourself underwater in a hurry," Geiger says "The good Lord smiled upon us as far as weather conditions.

"I can't say enough about Ron Forse and Ryangolf," he added. "A lot of things had to come together and they had to work as a team. Ryangolf made sure that whatever it took, they'd provide to get the job done."

Forse, a longtime fan of Dick Wilson's work, appreciates being selected to restore Hole-in-the-Wall to its former glory. "To have the opportunity to make it better than how it was built is a great honor," he says. "I'm very thankful."

Through all the hard work, months of painstaking execution and applying the finishing touches, Garcia was confident the outcome would match the team's effort. "We felt that due to the complexity of the scope, the restoration aspect of the total reconstruction and the amazing history of the club, it had all the ingredients to be a great project," he says. "Well, it did not disappoint, obviously. As it developed, it was evident that the final product was going to be exceptional in aesthetics as well as having a state-of-the-art infrastructure to go with it."

While the ravages of time aren't always kind to classic golf courses, with help from Ryangolf and Forse Design, Hole-in-the-Wall is back to aging like a fine wine, one round at a time. ▲

What the JUDGES said...

"Seven months from course closing to reopening? With very difficult existing site conditions, that is a renovation schedule. With the quality of the renovation, Hole-in-the-Wall has a new meaning."

"Ryangolf hit the nail on the head when they worked to restore Hole-in-the-Wall back to its original glory, while still modernizing the maintenance capabilities using many state-of-the-art technologies. Further, their ability to work through a whole new permit process in Southwest Florida a few days before they were to start construction, have the project delayed one month, but yet still deliver the project on time and under budget is, frankly, an incredible feat."

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An inspired solution

At Resort at Glade Springs' Woodhaven Golf Course, Aspen Corp. paired the best possible solution to each challenge they faced.

by Rob Thomas

Given the complexities of having 30 percent of its budget reduced, Aspen Corp. provided a spectacular finished product.

When designing and building a golf course, a shrinking budget, paired with increasing government hurdles, calls for an inspired solution.

Designed by Tom Clark of Ault, Clark & Associates and built by Aspen Corp., Resort at Glade Springs' Woodhaven Golf Course completes a troika of championship courses at the Daniels, W. Va. resort. Considering the vast majority of the golf-friendly terrain was used for the first two layouts and a mandate was in place to reserve the best remaining land for a residential development, the task was daunting.

Initially scheduled as a \$5 million project when the job opened up, approximately \$1.5 million was taken away for construction of a clubhouse, new swimming pool, tennis complex and cart storage. Now faced with a

bare-bones budget, Clark and Aspen headed back to the drawing board to make considerable changes.

"It was conservative for this site to begin with so there may not be enough meat on that bone to cut," says Aspen's vice president Ronnie Adkins. "We had intense meetings and discussions with the developer and architect to put all minds together to find the best possible solutions to all the challenges.

"We constantly controlled each segment of the budget to make sure there were no surprises to any team member," he says. "It took lots of upfront communication."

A certified golf course superintendent and former grounds director at the resort, Adkins was very familiar with the developer—Cooper Land Development—and the area, as his office conveniently sits directly across the street from the main entrance. Following several weeks of negotiations and value engineering



between the principals, the project was on, with a goal to build the best possible golf course with the available budget.

Working with the new budget

Based on the team meetings, a blueprint was created to hit the new budget:

- Greens and tees were reduced in size by 10 percent;
- Cart paths were reduced from 8 to 12 feet wide to 5 feet wide;
- Anticipated blasting was reduced by 90 percent;
- The driving range was eliminated;
- A great deal of drainage was removed from the plan; and
- The irrigation plan was re-engineered to reduce cost by approximately 25 percent.

Additional adjustments, Clark says, included the use of native sand in the bunkers – as opposed to white sand – and building California greens instead of USGA.

As a result of the reduced blasting budget, rock outcroppings were featured as a design element in some areas where that was not the original intent. Also, there are several areas throughout the project where the fairways and features were built on top of bedrock to avoid drilling and blasting costs, which offers a great base, but resulted in the features having to fit the existing bedrock.

Flexterra was used extensively for one-third the cost of sod. Fortunately for Woodhaven, Glade Springs is in

2010 creative award winner

WOODHAVEN GOLF COURSE, RESORT AT GLADE SPRINGS

Location: Daniels, W. Va. **Website:** www.gladesprings.com **Type of project:** New construction **Cost:** \$3 million **Construction started:** May 2007 **Construction ended:** September 2008 **Architectural firm:** Ault, Clark & Associates **Builder:** Aspen Corp. **Superintendent:** Rob Seiter

“grass-growing heaven,” Clark says.

“The Woodhaven project was the first time in our 28 years of building golf courses that we had a zero budget for sod, and in fact, used no sod on the entire project,” Adkins says. “This was part of the budget reduction at the beginning of the project. We suggested – and used very successfully – a combination of erosion control methods when seeding which included straw mulching, crimping, diversions, Flexterra and several other BMP methods.

“We had used other products similar to Flexterra on a smaller, less demanding, scale,” he adds. “We were able to use it around all the main features like greens, tees and fairways. By using our best-management practices for application, we had zero washouts and zero problems.”

Looking toward the end product, native grasses were used in areas where sod might ordinarily be planted. Bunkering also featured a more maintenance-friendly design. Lastly, 25 percent of the

bunkers would not have sand, instead becoming grass bunkers.

New challenges

With the design tweaked and building plan ready to be implemented, another wrinkle appeared in the project – a lack of groundwater for irrigation.

Although some preliminary site drilling had been done, it didn’t take long for Aspen to determine there was probably not going to be enough water to supply irrigation. Even if water was available, the quality would not suffice, as it was likely to be extremely high in iron due to the close proximity of an old mine.

The solution was nearly two miles away – 70-acre Chatham Lake. The challenge was running a pipeline through what proved to be rock from one end to the next. Because a standard trencher would not work, Aspen brought in a 60,000-pound trencher, along with a ram excavator, to get through the rock. “The rock was harder than expected,” Adkins says. “It was the white sand rock without seams... and is very hard to work with.”

While the distance was manageable and the means taken care of through heavy machinery, the route was far from ordinary. The HDPE pipe – chosen because it was the most environmentally friendly material available – needed to carry 200 gallons per minute and travel off the cliffs of the Glade Creek Gorge, through the ravine, crossing under Glade Creek, through three existing golf courses, beneath as many as eight streets and even under a lake to stay off private property.

An automated radio control system was installed with a delay sensor and repeater to communicate between the lake level at Woodhaven and the source so the system only pumps as needed and turns off automatically.

As if the terrain, water and budget challenges weren’t enough obstacles, the Indiana bat added to the laundry list of issues. The site was designated as a possible Indiana bat habitat, so trees

What the JUDGES said...

“What impressed me the most was as problems arose, they were solved by team work on a very challenging site.”

“Given the complexities of having 30 percent of their budget reduced, Aspen was able to provide a finished product that looks spectacular. Working as part of ‘the team’ and not just as the contractor allowed them to help produce cost savings without sacrificing quality. This type of teamwork is vital when a project faces road blocks and enables the contractor, architect and owner to all look good when the project is completed.”

“A golf course that looks like it has been there for a long time, which is a very difficult thing to do with the site conditions and the allocated budget. A strong working relationship between owner, designer and contractor has produced an outstanding golf course.”

could only be cleared when the Indiana bat was not present.

There were two choices: set up bat screens to catch the Indiana bat if present, or simply do the work in a non-season for the bat. The decision was easy – clear in the off-season.

More water issues

The shrunken budget and lack of irrigation addressed, governmental issues popped up. “There were many wetland areas that had to be guarded and protected as well as having a large number of streams throughout the site

that were designated as Waters of the U.S. that had to be protected as well,” says Adkins.

The corridors of the golf course could not be changed, so it was quite a challenge to reroute some of the holes within them to make the course playable. The areas that were supposed to be piped had to remain open, too. With this new information, the project suddenly became heavily permitted. An extensive stormwater erosion and protection plan was implemented and executed without a hitch, but Clark needed to design around the additional no-go areas.

“We had to push the envelope and go into unusable land,” Clark says.

Finished Product

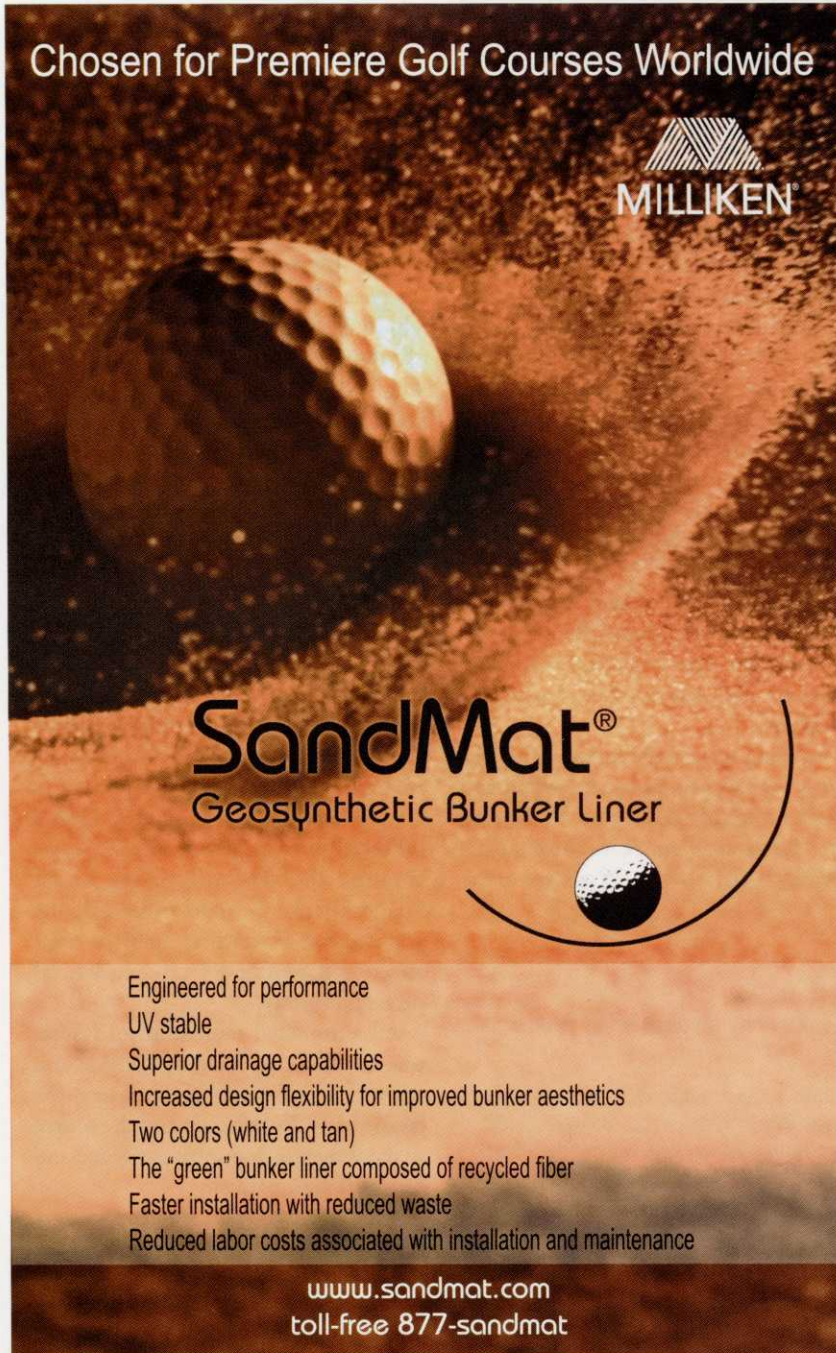
While the original design called for elements reminiscent of the Golden Age of golf course architecture, the budget cuts actually assisted in the “old school” look. Clark says the “throwback feel” was a “tip of the hat” to Charles Blair Macdonald, who designed the nearby Old White Course at The Greenbrier.

“We went from building something on a very difficult site and came up with something really great,” Clark says of the project. “The end result is spectacular. That’s what makes it all worthwhile.”


The design of Woodhaven has a maintenance-friendly edge to it, too. Superintendent Rob Seiter says the grow-in was extremely challenging because of the rugged terrain and seeding the entire layout, but the day-to-day upkeep has become more routine than exists at the sister courses.

“In the beginning we were at the will and mercy of Mother Nature,” Seiter says. “Now it’s even easier than Stonehaven. We’re dealing with two-thirds the acreage because of the native fescue areas.”

In the end, overcoming severe budget cuts, difficult terrain and water issues can be summed of in one word, according to Adkins, “team.” ▲



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Let it rain

Brian Almony and MacCurrach Golf Construction overcame record rainfall and a gushing underground spring to restore Ocala Golf Club to its original "Golden Age" design.

By Jason Stahl

Brian Almony fondly remembers when he used to play Ocala Golf Club alongside his grandfather, who lived in Ocala. Remembering himself as a boy with his bag slung on his shoulder and his grandfather trundling his clubs behind him on a pull cart, it was hard not to get sentimental when he bid on the Ocala Golf Club restoration project. But when he ultimately won the bid, it was all business.

Perhaps it was that special connection that allowed Almony and his team at MacCurrach Golf Construction Inc., to overcome record rainfall to complete the project on time, under budget and spot-on as far as restoring the course to its original classic feel from the golden age of golf design.

Almony probably half-expected to see a long-haired man building an ark near the course during the month of May, when Ocala recorded more than 20 inches of rain.

"Engineers design stormwater drainage based on 100-year storms, but I think we had two 100-year storms in one week," Almony says. "We really got hammered, but stepped it up by adding more people and equipment and working longer hours to keep on schedule."

And there was a lot to keep on schedule for. New USGA greens, tees, bunkers, irrigation, drainage and cart paths were all on MacCurrach's to-do list. The company mobilized its big iron early at the city's request to generate excitement during the club's last big tournament before clos-

ing the course for the renovation. But the public was able to keep tabs on the construction via numerous walking tours, which architect Mike Beebe says were instrumental in increasing people's understanding of the golf course renovation process. "They gave us a chance to talk through the vision we had for the course and what we were trying to accomplish and some of the pitfalls you sometimes encounter during construction," he says.

At least there was plenty of water, not from the copious rain but from a natural spring the construction crew ran into that ranked as the second biggest challenge to overcome. It was located underneath where the clubhouse had formerly been located but where there is now a condominium complex, appropriately called Marion Springs.

"Reshaping one of the greens, we were going through layers of old pipes people had put in, peeling off their attempts to solve this problem," Almony says. "There was just water flowing everywhere out of the side of this hill."



The grass MacCurrach planted on the greens was shipped from Texas in refrigerated trucks.

Almony says they installed pipes from the subgrade up the hill, around the green and in the bunkers and used “everything else in the book” to direct the seepage from the underground spring to creeks they constructed. Those creeks featured native boulders that were supposed to be hauled off site but instead were incorporated into their design.

Water wasn’t the only liquid that posed problems for MacCurrach. Try black slop about five-feet deep that they scraped out of the lake with a long-stick excavator after draining it. The goal was to solve a recurring flood problem by lowering the outfall for better lake elevation. The crew was fortunate to have accomplished this in April prior to the heavy rains, and local residents got thrills from some of the prizes they found in the lake bottom. “I heard people found arrowheads,” Almony says. “Of course, the whole bottom of the lake was solid golf balls. I took a picture because there must have been 20,000 of them.”

Prior to the construction, the club made a commitment to minimize water usage by installing an automated irrigation system with more sprinkler heads. The decision was also made to eliminate overseeding, use a different type of Bermudagrass for the greens and much more to reduce turf acreage.

“Minimizing water has to be there,” Beebe says. “I don’t think we can survive and continue with the old model. There is so much pressure from an environ-

mental standpoint to be more conscious of those things. As an industry, we’re always searching for ways to lessen that footprint and use less water, chemicals and energy. And that’s why we tried to push that from the very beginning on this project.”

The grass MacCurrach planted on the greens was shipped from Texas in refrigerated trucks. When the last of three shipments came, the last green wasn’t finished being built yet due to a setback from the rain. But improvisation is a wonderful skill to have. Since the green wasn’t going to be ready for another few days, and the grass was perishable, the club let MacCurrach store the sprigs in their two walk-in coolers in the clubhouse restaurant – which wasn’t too big of a deal since the clubhouse was closed anyway.

“We put them in there and a few days later, they were just like the day they came, fresh as could be and ready for planting,” Almony says.

Overall, Beebe was impressed with how MacCurrach handled the untimely downpours that threatened the project at every phase. “We had a site that drained well, and we had a contractor that had the equipment, manpower and resources to work around those kind of events and, if they lost a little time, was ready to jump back on it and hit it twice as hard,” he says. “MacCurrach is a Florida contractor and has dealt with these situations before and knew how to manage the site and the conditions and

2010 legacy award winner

OCALA GOLF CLUB
Location: Ocala, Fla. **website:** www.ocalagolfcourses.com **Type of project:** Renovation **Cost:** More than \$1.3 million **Construction started:** March 30, 2009 **Construction ended:** Oct. 21, 2009 **Architectural firm:** Beebe & Associates, Inc. **Builder:** MacCurrach Golf Construction, Inc. **Superintendent:** Jason Regan **Owner representatives:** City of Ocala

when to push the envelope and when to pull back to make sure the site dried out a little.”

Assistant City Manager John Zobler lauded MacCurrach for its level of communication throughout the project. “Brian Almony worked on the job site a minimum of three days a week, so we really had hands-on assistance from MacCurrach at the highest levels,” he says. “Mike Beebe and MacCurrach had worked together in the past, so they had an excellent working relationship, and anything that came up in terms of conflicts between the plans and the architect’s vision and the city’s budget requirements were able to be worked out. MacCurrach was extremely gracious many times, ceding to design changes and working within our budget.”

Almony is especially proud of the work his company did given the poor economy and his decision to stay strong and keep his valued human resources.

“We knew going into 2009 that it was going to be a bad year,” he says. “We invested a lot of years in getting the people we have, and even though a lot of people were getting laid off, we didn’t want to go that route. We thought we could build a bridge from 2009 to 2010 by working at basically cost and keeping our people employed. So we went into the Ocala project with a pretty good number and maintained our staff of people, and Ocala got a great deal.

“We’ve built some pretty fine new high-end golf courses and worked for the greatest architects in the world, but renovations are where we really shine.” ▲

What the JUDGES said...

“Golf course construction always presents some unknown challenges but to have 26 inches of rainfall in one month is above and beyond what is considered extreme. To still meet the project budget and construction deadline under those conditions and deliver an outstanding product is an extreme feat in its own right.”

“An existing golf course has ‘existing’ conditions to deal with in a renovation process including underground springs and old infrastructure. Combine this with excessive rains during the construction process and chances of a successful project can be greatly reduced. Not in this case. An excellent representation of legacy work.”

“The project just seemed to have so many challenges from working with the city budget to sink holes. Any time you are trying to save certain parts of the course and make them blend in as if they were always there is tough.”