

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.”

Laser focus

Nick Scigliano and Frontier Golf take GPS technology to the next level in accurately reconstructing the existing greens at The Olympic Club's Lake Course.

By Jason Stahl

When Nick Scigliano was GPS mapping The Olympic Club's greens using a data collector, an hour didn't go by when a member didn't come up to him and ask, "What is that contraption?"

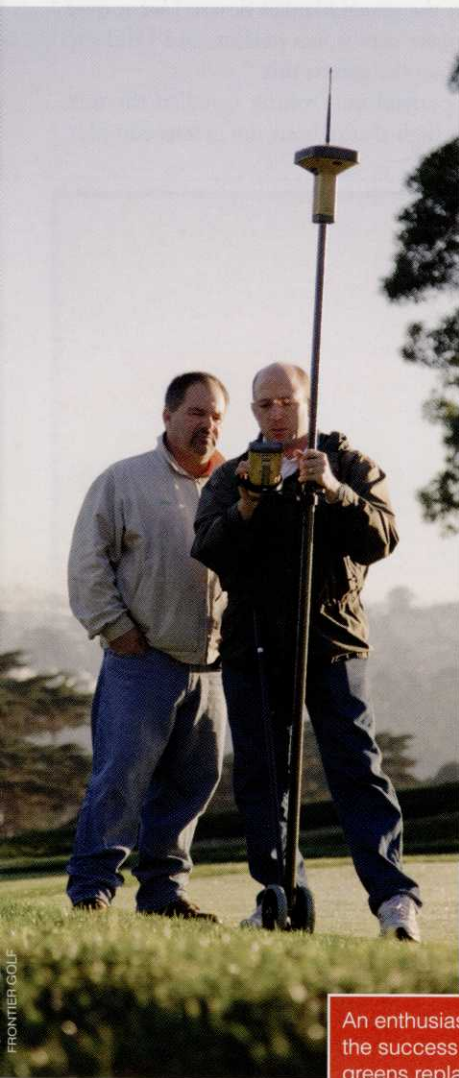
Scigliano, a self-professed "techie," would then turn into an excited little kid explaining to them how it worked. "I got pleasure in demonstrating it to the members," says Scigliano, president and CEO of Frontier Golf. "I would hand them the data collector, which is wireless, and while they were standing on the putting surface and I was mapping, they were able to look at it and see the image of the green and the points I was taking. And then right there in the field I would convert it into a contour map and let them see what I just did. It's fascinating to someone who has never seen it before."

It was that enthusiasm for GPS technology, not to mention meticulous planning and uncompromising attention to detail, that drove the success

of Frontier Golf's Lake Course greens replacement project at the historic club and host of the 2012 U.S. Open located in San Francisco.

The project was necessitated by a nematode issue and the fact that a pesticide the facility had used to deal with the issue had been taken off the market. According to director of golf maintenance operations Patrick Finlen, there was no adequate replacement product, so the decision was made for a total renovation. Seven builders bid on the project, which began on Nov. 24, 2008, and was completed on March 24, 2009, but Frontier Golf stood out.

"Frontier was only one that told me it would have one person on site the entire time who did nothing but run the GPS unit," Finlen says. "The other contractors were going to come in and shoot the greens ahead of time, core them out, do the work and then have someone come back and do the finish work with GPS to make sure the greens went back exactly as they were."



An enthusiasm for GPS technology drove the success of Frontier Golf's Lake Course greens replacement project.

To Finlen, this wasn't going to cut it, especially when there was no tolerance for error in maintaining the existing contours on 14 of the 18 newly constructed greens. Scigliano's goal was to record the existing surfaces at a 1/8-inch tolerance, and while he was able to do that due to his extensive GPS mapping experience, features of the course itself provided some challenges. "The vertical accuracy of even the latest GPS technology is still dependent on the number of satellites you can see in the sky at any given time," he says. "At The Olympic Club, the cypress trees are so tall and their canopies so dense that they were blotting out portions of the satellite spectrum. So in certain areas, my vertical tolerances were becoming unacceptable at outside a quarter of an inch."

2010 legacy award winner

THE OLYMPIC CLUB

Location: San Francisco **Website:** www.olyclub.com **Type of project:** Renovation **Cost:** \$700,000 **Construction started:** Nov. 24, 2008 **Construction ended:** March 24, 2009 **Architectural firm:** W.R. Love Inc. **Golf course builder:** Frontier Golf **Director of golf maintenance operations:** Patrick Finlen

To troubleshoot this problem, Scigliano employed a millimeter GPS unit, which sits on a known point next to a green and broadcasts a spectrum of laser beams to the handheld GPS unit or "rover" to let it know what elevation it's at. "The rover references the millimeter GPS unit three to four times per second and adds it to the equation it's calculating all the time and takes the vertical tolerance down to one millimeter, or inside of one-eighth of an inch," he says.

Scigliano also took his points on 1-foot centers, as opposed to a more traditional 5- to 10-foot grid. That means a survey point was taken every foot in every direction. If a green had a tier in it, he would take points every 6 inches.

The greens were then cored out and the gravel blankets and greens mixes installed. But the GPS mapping didn't stop. Scigliano mapped the greens as they were being adjusted and built. "I'll bet we mapped the subgrade on the No. 8 green seven or eight times," he says. "I had to use the same level of detail when I got to the greens core to make sure it was perfect. When we put the gravel blanket down, I went over it multiple times to make sure it was perfect, and I did the same when we put down the greens mix."

To further ensure perfection, Frontier installed the mix at a consistent 1 inch high throughout the greens complex



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and then thoroughly saturated it with water to pack it down and maximize compaction. Then, before the sod was laid, they pulled a half inch to one inch of overburden off so that everything they were laying sod on was in a cut. No fill was done.

“Any time you fill, you always have the possibility of settlement because of a lack of compaction,” Scigliano says. “So when we go through a green, we make sure that everything we do in the last pass is a cut so there isn’t one area of the greens surface where any fill materials have been placed. If you put it in at grade and then have a little bit of settlement, when you’re doing your final check, you may find a little water hole and throw some sand in there. But that sand isn’t compacted even after you try to step or tamp it in. It’s still not water packed 100 percent. So if you’re in an area of a green with tight grades, say one-quarter to one-half percent, that little tiny depression could create a problem.”

In addition to GPS, e-mail allowed for constant and instantaneous communication with architect Bill Love of W.R. Love, Inc. Golf Course Architecture, and Finlen. With the No. 8 green, which was brand-new, and three other greens which were modified to Love’s specifications, some changes were made right in the field. In those cases, Frontier would map the subgrade, create a 3D model in AutoCAD, spin out a heat map for floats and, within a few hours, Love could view the changes he made. “Bill could respond even if he was in his office in Maryland,” Scigliano says. “We would e-mail the drawing over, and he could look at and get right back to us with an updated drawing or a drawing right on top of ours.”

Frontier avoided weather delays by finishing the major work by Christmas, before the rainy season. When they came back, all they had to do was touch up the putting surfaces prior to installing the new sod. “We really had to hump,” Scigliano says. “We worked in the rain some, but mostly we had to deal with mist and not what I would call a rainstorm. The GPS works just fine in fog, unlike lasers which don’t.”

Frontier also worked around the members, who were able to still play the course due to the construction of bentgrass temporary greens in September 2008 that ranged in size from 1,000 to 12,000 square feet. “We have a large membership here, so our feeling was that we would have taken a little of the edge off the other 18-hole course by keeping this one open,” Finlen says. “Plus, we knew members would be fascinated by the process, so instead of having them idly checking it out we would let them go play and see the construction. The nice thing was that it wasn’t crowded.”

Aside from the greens, Frontier constructed new holes on the par-4 7th, par-3 8th and par-3 15th and completely reconstructed existing tees on 10 holes. The tee work as well as laser-leveling new driving range tees was added by the club due to the craftsmanship Frontier displayed during the course of the original project. ▲

What the **JUDGES** said...

“It has always been said that the smaller the work area, the more difficult the project. What Frontier Golf was able to complete by working within the confines of the existing green cavity makes for an impressive project. Minimizing disturbed areas, working on a tight schedule and keeping the golfers happy are goals every contractor strives to accomplish. Frontier Golf passed that challenge with flying colors at Olympic Club.”

“Reconstructing greens and reproducing the original contours with the golf course remaining open is difficult enough. Adding the additional work and the restrictions on time of work and access, makes this an outstanding example of ‘legacy’ work.”

“Frontier did a fantastic job under the most scrutinizing eyes possible, the USGA, in preparation for the 2012 U.S. Open. Their work will be on display for all the world to see and appreciate.”



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