

Issue 35 | Fall 2017

BY DESIGN




Excellence in Golf Design from the American Society of Golf Course Architects



The renovation equation

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For golf club members, the prospect of a course renovation brings fear and excitement in equal measure.

The fear typically comes from concerns about disruption to the course while the work is in progress. The excitement is the anticipation of a revitalized course to play once work is complete.

Some golf clubs have delayed their renovation programs while they navigate difficult financial circumstances. But for others it is a renovation project that has sparked their revival and helped them emerge with a more positive outlook for the future.

But how can you be sure that a golf course renovation project will be successful? Our cover story for this issue of *By Design* considers the experiences of three golf clubs who have made a bold renovation decision and are reaping the rewards as a result.

Learning from their experiences may give you the confidence to embark on your own renovation project and breathe new life into your golf facility.

I hope you enjoy the read.



John Sanford, ASGCA
President
American Society of Golf Course Architects

BY DESIGN

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CONTENTS

Digest 4

Our round up of the latest in the golf design industry includes news of the USGA's women in golf architecture exhibit, plus a high profile new opening in Pennsylvania.

Renovation 12

By Design details three renovation projects that have helped to transform their clubs' fortunes.

Bob Moote, ASGCA Fellow 18

We reflect on the life and career of the Canadian architect, who passed away in May.

Atlanta Athletic Club 20

Ian Williams of Rain Bird explains how the club has used the latest irrigation technology to reduce water usage.

Fresh Thinking 24

By Design hears from the five new Associate Members of the ASGCA.

Five to Finish 28

Wisconsin-based golf course architect Garrett Gill, ASGCA, answers our five questions to finish this issue.

COVER



Bakker Crossing Golf Club in Sioux Falls, South Dakota, was renovated by Kevin Norby, ASGCA. Photograph by Peter Wong.

USGA Museum celebrates women in golf architecture

A new exhibit celebrating the history of women in golf course architecture has opened at the USGA Museum in Liberty Corner, New Jersey.

ASGCA Past President Alice Dye, ASGCA, and Jan Bel Jan, ASGCA, both feature prominently in the exhibit, which is titled 'Breaking New Ground: Women in Golf Course Architecture.'

Dye and Bel Jan are described by the USGA as being "on the forefront as they influenced course design theory and created more equitable and enjoyable experiences for all."

In 1930, the U.S. Women's Amateur course measured 6,635 yards, while the course for the men's U.S. Open in the same year was 6,672 yards.

Dye and Bel Jan have been frontrunners when it comes to ensuring that golf courses account for female players and shot values are fairly reflected.

Dye was instrumental through her development of a Two Tee System in the 1980s—as discussed in more detail in the [Summer 2017 issue of By Design](#), published shortly after Dye received ASGCA's 2017 Donald Ross Award.

Bel Jan has consistently designed golf courses with appropriate tee placements for all levels of player, including Pelican's Nest Golf Club in Bonita Springs, Florida, which was profiled in the [Spring 2016 issue of By Design](#).

The USGA exhibit also celebrates the work of some of the first females ever to venture into the golf design field, including Molly Gourlay and Marion Hollins.

Diana Murphy, president of the USGA, commented: "These incredible women not only shaped the dialogue surrounding how courses could be more welcoming to other women—they also inspired new generations to build careers and opportunities in golf."

The exhibit celebrates the work of early female architects, including Marion Hollins (pictured below right with Alastair Mackenzie, H.J.

Whigham and Robert Hunter, Sr.), as well as those still working in the field, such as Jan Bel Jan, ASGCA (below). ASGCA supporters Arthur Little and Jann Leeming (right) of the Royal Little Family Foundation are featured in the exhibit for their commitment to data-driven decision-making on tee placement and other course set up concepts.



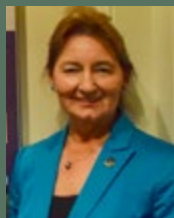
A whole different philosophy

In a video about the exhibit created by the USGA, Alice Dye and Jan Bel Jan discussed their respective approaches to golf course architecture and how they accommodate for the full spectrum of players.



"When we first started playing golf, the average player was about 40 and walked. Now, with a golf cart, we have people playing well into their 90s. It's a whole different philosophy that we have to work with now. People are aware that the yardage on a golf course is important, and that a player should be playing a yardage that makes the course fun and enjoyable for them."

ASGCA Past President Alice Dye, ASGCA Fellow

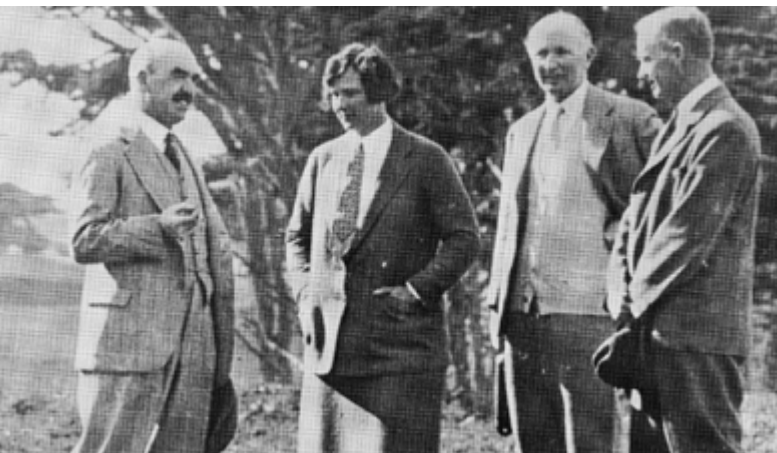


"The people who played golf when I started, especially women, were probably more athletic. You start thinking about people who can't get the ball airborne, but still love the game of golf, love the challenge, and love the competitiveness. They like the social aspects. How can I help these folks? Scoring is inclusionary to everybody; regardless of skill level, regardless of gender, regardless of age. Everybody wants to score. Collegiate coaches put their players once a week at the shortest tees. Why? They learn to go low. If it works for them, why wouldn't it work for every golfer?"

Jan Bel Jan, ASGCA

We believe that by using the concepts embodied by Design Fairness, the sport of golf will expand the spectrum of people who want to play because there will be courses that fit more people.

- Jann Leeming and Arthur Little



Photos: Courtesy USGA. All Rights Reserved

New golf course

Shepherd's Rock opens at Nemacolin Woodlands

The latest addition to the Nemacolin Woodlands Resort—the Shepherd's Rock golf course—has opened for play.

Designed by Pete Dye, ASGCA Fellow, and Tim Liddy, ASGCA, the 7,151 yard course will complement the existing Dye-designed Mystic Rock course at the resort in Farmington, Pennsylvania.

The course's front nine is characterized by wide fairways and vistas of the picturesque surrounding Laurel Highlands. The back nine holes have a greater emphasis on shotmaking, with players having to negotiate a series of characteristic Dye mounds, wetland areas and interesting but challenging green locations.

"Pete Dye and Tim Liddy have created a true golf masterpiece in Shepherd's Rock, and we're overjoyed with the results," said Monte Hansen, managing director at Nemacolin Woodlands Resort. "Few resorts showcase 36 holes of this magnitude, positioning us at the pinnacle of premier golf destinations in the U.S."

The new course is located high up in Pennsylvania's Allegheny Mountains



Photo: Gena Keebler



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Renovation

Mississippi course to get returning nines

Golf course architect Nathan Crace, ASGCA Associate, has been hired to lead a renovation and redesign project at The Refuge golf course in Flowood, Mississippi.

The course is held in high regard, but considered too tight and short. The course's current 'nine out, nine back' layout also makes it difficult for golfers to play just nine holes.

The renovation includes the creation of two new holes and realignment of others, meaning two sets of nine holes will return to the clubhouse.

"That's going to be a big shot in the arm to the operation of the course," explained Crace. "Our golf professional Randy Tupper can tell you that it's a daily occurrence for

golfers to walk in asking to play nine and it's currently not a popular option because the tenth tee is on the opposite end of the property. They can play nine, but then they have to walk or ride all the way back. The discussion of having returning nines after the renovation has already stirred up a lot of excitement."

Crace believes that the final four holes of the new layout—which will include a 191-yard par three, a drivable par four with a water feature in front of the green, a par five that plays in excess of 600 yards, and a new mid-length par-four 18th hole with a new 12-acre lake—will be one of the most enjoyed stretches on the course.



New tees please!

The renovation project at The Refuge will include the introduction of a new tee system developed and supported by the ASGCA Foundation. This new system aims to make golf enjoyable for players of all abilities.

At The Refuge, golfers will be able to play the course from as little as 4,000 yards to more than 7,000 yards, and select tees depending on their skill level.

"Members of the American Society of Golf Course Architects recently adopted this approved tee system to help grow the game and offer options for more players of all skill levels," said Crace. "It's more than just adding more tees—there's a lot of hard data involved. ASGCA Past President Rees Jones, ASGCA, is currently putting it into place at Medinah No. 2 and we are thrilled that The Refuge will be among the first to adopt it!"

Study finds golfers are playing more often

A new study for GOLF.com by Sports & Leisure Research Group shows positive signs for the golf industry. According to the findings, more committed golfers are playing with greater frequency, and this looks set to continue moving forward. Survey respondents were golfers who played at least 10 times in the past year, and just over half had a 10-20 handicap.

96%

will play as much or more golf this year than last year

81%

played as much or more golf over the previous year

76%

played mostly on public courses

73%

do not enjoy playing golf alone

56%

use golf carts

55%

arrive 30 minutes before tee time

49%

favor stroke play when playing a casual match with friends

41%

find the idea of a nine-hole round appealing

36%

find golf more inclusive and welcoming than it was a generation ago

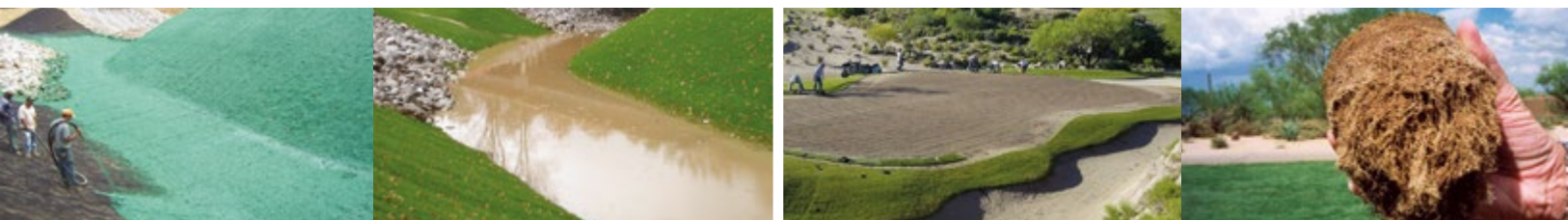
23%

say the putter is their favorite club in the bag

The complete survey is available via www.golf.com.

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ASGCA Annual Meeting

Large crowds, great education at Annual Meeting

The 71st ASGCA Annual Meeting in Jupiter, Florida, was a five-day opportunity for ASGCA members and industry leaders to engage in entertaining and informative education sessions, while also renewing acquaintances and creating new friendships. The ASGCA Education Committee put forth a comprehensive program for the meeting. Presentations included:

- Turfgrass expert Dr. Thom Nikolai of Michigan State University: how to measure and use a course's constituents' green speed preferences to increase rounds.
- A panel discussion featuring ASGCA Major Leadership Partners Landscapes Unlimited, Profile Products, Rain Bird, Toro and Troon, providing their unique perspective on the state of the

industry in North America and around the world.

- Peter Maybach and Mark Burrows, Brookside Labs: water quality and quantity.
- Jan Bel Jan, ASGCA, and Steve Jubb, National Alliance for Accessible Golf: designing to meet standards for the Americans with Disabilities Act.
- Dennis Hurley, Turf Drain: "When 3% slope isn't the solution."
- Brian Idle, Peacock & Lewis: the future of clubhouse design.
- Joe Foley, United States Golf Association: update on the proposed changes to the rules of golf.
- John Holmes, Atlas Turf: bringing new turf varieties to market.

"The Annual Meeting allowed members to again learn from each other during open discussions that



From left: ASGCA members Damian Pascuzzo, Nathan Crace, Brian Huntley and Rick Phelps

will allow us all to better-serve our customers," said Education Committee chair Jason Straka, ASGCA.



"I've learned to adapt my design philosophies to the location and make it work for the natural conditions"

JOHN SANFORD, ASGCA PRESIDENT

As part of its 'Tartan Talks' series, *Golf Course Industry* spoke with John Sanford, ASGCA President, about his life in golf, professional views on strategic design, and golf courses in Florida.

"Working in South Florida is a mixed blessing," said Sanford. "On the one hand you have mostly sandy soils that move pretty easily. The flipside is when

you are working with flat land and not real significant vegetation, what we're having to do is really manufacture a golf course.

"I've been fortunate to work around the world," he continues. "And that's what's great about this profession—everywhere you go it's different. The soils change, the topography changes, the vegetation changes. I've learned to adapt my

design philosophies to the location and make it work for the natural conditions.

"Strategic quality is very important to me. If a golf course doesn't have a planned strategy and strategic quality, it is a very nice park," says Sanford. "The most important thing is to really understand the property first."

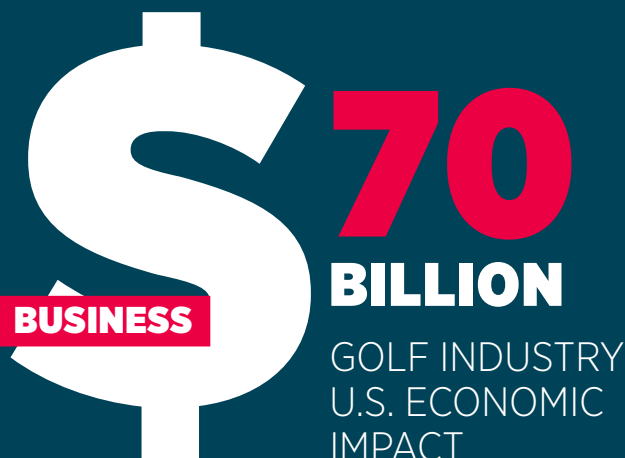
[Click here to listen to the interview in full.](#)

HERE ARE LINKS TO OTHER RECENT "TARTAN TALKS," NOW FEATURING MORE THAN A DOZEN EPISODES:

- ASGCA Past President Dr. Michael Hurdzan, ASGCA Fellow, discussing [the Golden Age of golf design](#).
- ASGCA Past President Steve Forrest, ASGCA, and Shawn Smith, ASGCA, on [restoration, remodeling and renovation](#).

GOLF BY THE NUMBERS

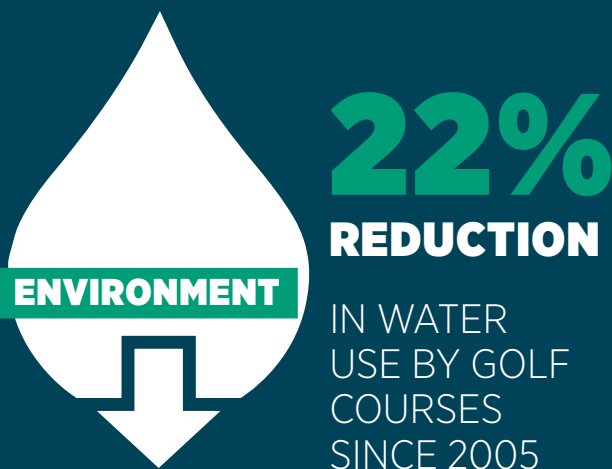
THE GAME OF GOLF REMAINS STRONG. AS THESE STATISTICS FROM ASGCA, GOLF 20/20 AND WE ARE GOLF ILLUSTRATE, MORE GOLFERS ARE PLAYING MORE OFTEN, AND LIKELY ON A COURSE TOUCHED BY AN ASGCA MEMBER.



- 2 million – U.S. jobs with direct ties to golf
- \$3.9 billion – Annual amount raised by golf industry for charity (more than all other sports combined)
- 76% – Golf played on public courses



- 2 million – Those trying golf for the first time in 2015 (more than any year since 2002)
- 29% – Increase in number of youth golfers ages 6 to 17 in the past three years



- 65% – Golf course facilities who have upgraded irrigation systems in the past 10 years
- 77% – 18-hole U.S. golf facilities that have taken steps to conserve energy



- 96% – Advise clients on water quality/availability
- 93% – Help clients improve/expand practice areas
- 93% – Add tees to accommodate juniors, women & new players

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Social update



An Environmental Approach to
Golf Course Development
American Society of Golf Course Architects



“An Environmental Approach to Golf Course Development.” More than two dozen designs from ASGCA members that are fun to play and benefit Mother Nature <http://tinyurl.com/yborq3vl>



ASGCA



Any visit to Columbus, Ohio, should include a visit at Hurdzan Golf Design. A museum to golf, it includes 6k books, 8k clubs & countless paintings and artwork. Incredible. [@asgca1946](https://www.instagram.com/asgca1946)



asgca1946



She's coming along [@SchaumburgGolf](https://twitter.com/SchaumburgGolf)



Lohmann Golf Designs
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Another great visit to [@ColdstreamCC](https://twitter.com/ColdstreamCC) yesterday. Really excited about the new practice facility that's taking shape. [@HillsForrest](https://twitter.com/HillsForrest)



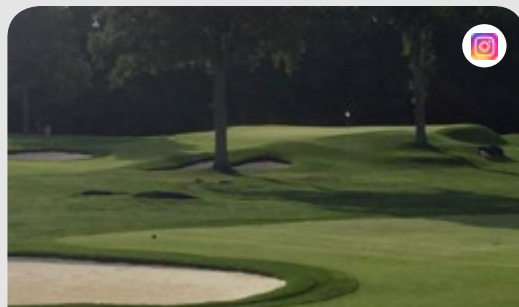
Shawn Smith, ASGCA
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Two guys talking golf course architecture; ASGCA President John Sanford and Erin Hills architect Ron Whitten. [#usga#asgca](https://twitter.com/usga#asgca) [#usopen](https://twitter.com/usopen)



asgca1946



Looking across at the restored 14th green on Winged Foot West. Back today for a planning meeting, less than a month to go before we start work on front nine of the West. Superintendent Steve Rabideau and crew have the place looking and playing mint!!



gil_hanse



Golf & Water: Case Studies in Water Stewardship" from ASGCA shows again & again how golf benefits the environment. <http://tinyurl.com/lofqzmy> Thanks to support from Rain Bird Golf and The Toro Company Foundation



ASGCA

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The renovation equation

How can a renovation double your membership? Or increase rounds played by 60 percent and raise revenue by over 90 percent? *By Design* looks at three projects with results of that scale and asks whether there is a formula for their success.



The renovation of Bakker Crossing in Sioux Falls, South Dakota, has resulted in a golf course that is unique in the local area

Golf course renovation work has often been considered, by club owners and members, simply in terms of cost.

In some instances, the renovation work may be deemed a necessity, perhaps to fix a faulty irrigation system or failing bunkers. Other projects are more of a luxury, to improve aesthetics and the playing experience for members and guests. Either way, the first question asked is often ‘at what cost?’

But club owners are increasingly viewing renovation as an investment, where work is being planned with the return at the front of mind. And that’s not just in terms of the extra revenue from additional rounds or a higher green fee, but also a result of reduced running costs such as maintenance and resources.

In many cases, the potential savings are so great that clubs will ask not whether they can afford to renovate, but whether they can afford not to (see box, ‘The cost of inaction’).

So what does it take to double membership, or increase rounds played by 60% and raise overall revenues by in excess of 90%? Is there a formula for this type of success? We consider the examples of three recent renovation projects that have delivered returns of this nature.

Bakker Crossing Sioux Falls, South Dakota

Like most cities across the United States, the golf market in Sioux Falls, South Dakota, is highly competitive.

There are a range of courses spanning the municipal, public and country club sectors. Bakker Crossing fell somewhere in the middle, as a moderately-priced public facility, known for presenting golfers with a challenging round.

With competition from all sides, the club saw a need to differentiate itself. It engaged golf course architect Kevin Norby, ASGCA, to conduct a long-range master plan study, and commissioned a detailed market and financial analysis by golf strategist J.J. Keegan.

The analysis revealed that there was an opportunity for Bakker Crossing to reposition itself in the local market as a higher-end public course. This would require an improvement in course conditioning, and making the course less difficult, but more strategic.

For club owner Donn Hill, the key was to maximize the appeal of the golf course to as many golfers as possible. “The purpose of the renovation was to improve playability of the golf course,” he explains, “and give it some features to distinguish it from other courses.”

This meant moving some of the water hazards so they were out of play for regular golfers, but still a challenge for the better player. And Bakker Crossing’s distinguishing feature would come in the form of its bunkers.

“We’re in a very windy part of the country and so sand splashed up on the face of bunkers is difficult



to maintain, both when we get rain and wind,” explains Hill. “Kevin and I worked on and came up with something that would be unusual in our area but still fit in with some of the history of golf.”

“I wanted the bunkers to be deeper, so they would retain their sand on the relatively flat and windy site,” adds Norby. “So we designed the bunker bases to be flat so the sand didn’t wash out and maintenance was easier. And the faces are all lined with timbers at a 45-degree angle, so they are visible to golfers.”

“The timber-faced bunkers look just great, really tremendous,” says Hill. “The reason I love the bunkers is because they are a hazard for better players while making it easier for average players to play. If they hit the wood face, the ball will come out of the bunker almost every time. So the average player is happy, because they don’t have to play another bunker shot.”

In the case of Bakker Crossing, the renovation was just one part of the equation. “We changed our business model to appeal to more golfers,” explains Hill. “We formed a new company based on golf and

Image: Peter Wong





Extensive tree removal at Union League Golf Club at Torresdale has helped to restore the course's original strategic values (inset, before renovation)

fitness called GreatLife, with the goal to enrich the lives of families and individuals. We wanted to grow the number of golfers in our community—not just take rounds from other places.”

GreatLife has a range of fitness and golf facilities in the surrounding area, and members of one club have comprehensive privileges at numerous others.

The results at Bakker Crossing are impressive. Rounds rising from 26,000 per year pre-renovation to 43,000. Hill explains that it is hard to separate out the impact of the change in business model from the impact of the renovation. “But what I can tell you is from 2013 to 2016, our revenues are up 93%. Would it have worked if the course were not as playable? Probably not.”

Union League Golf Club at Torresdale Philadelphia

Another club where a new approach to the business model went hand-in-hand with a renovation project is the former Torresdale-Frankford Country Club, located near the Delaware River in Northeast Philadelphia.

The cost of inaction

Golf clubs considering a renovation will pay close attention to the cost of the project. But as ASGCA Immediate Past President Greg Martin has emphasized, a complete view of the renovation equation also requires consideration to cost of inaction, which includes:



Maintenance—as elements of the golf course age and fail, additional manpower is needed to maintain them to a functional standard. This is particularly notable for irrigation and bunkering, which are the focus for many renovation projects.

Resources—in addition to manpower costs, inaction can lead to continued unnecessary expenditure on resources such as water, chemicals and parts.



Membership—a decaying golf course leads to member dissatisfaction and declining fees as existing members and potential new members choose a different club.

Guest fees—in a competitive marketplace, a lower quality product will attract a lower price point, limiting the potential income from guest fees.



Additional revenues—revenues associated with golf carts, food and beverage, lessons and more all decline if a facility is failing to attract a healthy flow of golfers.



Bunkers at Ridgemoor CC in Chicago were rebuilt, leading to significantly reduced daily maintenance (inset, before renovation)



Home to a Donald Ross course, the club had struggled since the financial crisis that began around 2008. By 2014, annual rounds had dwindled to 12,000 and membership had fallen from 350 to fewer than 150, despite dues remaining static for many years.

At the same time, The Union League of Philadelphia, a historic city club whose impressive League House occupies an entire block in Downtown Philadelphia, was looking to expand the facilities available to its members. A merger would provide the resources necessary to fund a renovation of the golf course.

The club hired golf course architect Stephen Kay, ASGCA, to oversee a \$2.8 million project to renovate the golf course and practice facilities.

Kay describes the condition of the course at the time of the merger: “Bunkers held water after rain, tees were not level and some fairways drained poorly. Like many classic-era parkland courses that were overplanted in the 1960s and 70s, it had become overgrown with trees that encroached on fairways, restricted approach shots and hurt the greens agronomically.

“The course has a very good Donald Ross routing, with good strategy and great green contours,” continues Kay. “We began by redesigning and rebuilding the driving range and adding a short game area.”

This meant that facilities were available to use while the golf course was restored to the integrity of Ross’s original design, with a few tweaks to suit the modern game. “We removed 400-500 trees, rebuilt tees, rebuilt the bunkers and softened the slopes on three of the greens so that they were suitable for today’s green speeds,” explains Kay.

The restoration made the golf course more enjoyable for players of all abilities. It is more challenging for

Rick Jacobson, ASGCA, prepared a comprehensive renovation plan for Ridgemoor CC to improve all aspects of the golf course

the best players and more playable for the older members and higher handicappers. Rounds increased to 25,000 per year and membership is now full at 350, with more on a waiting list.

"The restoration has been an overwhelming success by any measure," says Union League Golf Club at Torressdale consultant Rodger Gottlieb, "including membership

by Rick Jacobson, ASGCA, was the regrassing of tees, greens and fairways to a new pure bentgrass sward. This would allow the club to cut fungicide usage by over 50% compared to previous seasons, and requires significantly less irrigation water and labor for hand watering.

The club now has much more consistent playing surfaces which are easier to maintain, even

"Rounds increased to 25,000 per year and membership is now full at 350

growth and retention, rounds played, aesthetics, pride and ease of maintenance. It was done on time and on budget. It truly signifies a new era for an extraordinary Donald Ross gem, uniquely located in a major metropolitan city, that otherwise would have likely been headed for closure."

Ridgemoor Country Club Chicago

An oasis of green space in Chicago's urban sprawl, Ridgemoor Country Club has a unique place in championship history. It hosted the only Hale America National Open in 1942, which was arranged to replace the United States Open that was canceled due to World War II.

Tournament winner Ben Hogan would go on to claim the Hale America as a de facto fifth U.S. Open win, on a course that has seen great golf course architects including ASGCA Past President William B. Langford, A.W. Tillinghast and ASGCA Past President Larry Packard contribute to its design over the years.

In 2014, the club embarked on a renovation plan designed to provide its membership with an outstanding golf course for the next 20-30 years. Golf course superintendent Josh Langell explains that the aim was to provide "a golf course that can be regulated and managed by the grounds staff instead of a golf course that manages and regulates the staff."

Central to the renovation, overseen

during prolonged heat or drought conditions. Rebuilt bunkers, with new sub-base treatment and sand, also demand significantly less daily maintenance attention, with post-rainfall washout eliminated.

"Greens were restored back to their original sizes," says Jacobson, "and bunkers altered to be more reminiscent of the original intent." A new lake on the fifth hole also improves strategy and aesthetics.

Since its completion in 2015, the club has been able to raise initiation fees, dues, guest and cart fees, all while maintaining membership numbers and rounds played in a challenging and competitive golf market. As with the other projects referenced, this renovation has had an impact on both sides of the financial equation, lowering ongoing running costs while increasing revenue.

So, do these renovation projects suggest there is a simple formula that clubs can follow to achieve success? Likely not. Each faced unique circumstances that required a bespoke solution, suggesting that there is no one-size-fits-all solution for golf course renovation. But each saw a group of experts coming together for a collaborative review of the golf course and business model—a sensible starting point for any golf club considering a renovation.

To find an ASGCA member in your area, visit www.asgca.org/architects.

Success stories

The July 2017 issue of *Golf Course Architecture* magazine profiles three more renovation projects by ASGCA members:



Photo: Evan Schiller © Medinah Country Club

Medinah Country Club Chicago

ASGCA Past President Rees Jones, ASGCA, and his team have just completed a restoration of Tom Bendelow's design of the No. 2 course.



Photos: Drew Rogers

Royal Poinciana Naples, Florida

One of the best clubs in the golfing hotspot of Naples now has a course to match, thanks to a renovation by Drew Rogers, ASGCA.



Photos: Larry Lambrecht

Olympic Club, San Francisco

ASGCA Past President Bill Love, ASGCA, has completed a bunker renovation at the storied club's famous Lake course.

Read the latest issue in full at www.golfcoursearchitecture.net/magazine

Building for generations

By Design reflects on the life and career of Canadian architect Robert “Bob” Moote, ASGCA Fellow, who passed away at age 92.



Robert “Bob” Moote, ASGCA Fellow, enjoyed a long and distinguished career as one of Canada’s leading golf course architects.

Based in Brampton, Ontario and a graduate of the province’s University of Guelph, Moote was given his chance in the industry by Canada’s most prolific architect, ASGCA Past President Stanley Thompson, a founding member of the Society.

In an interview Bob and his son David Moote, ASGCA, gave to *Golf Course News* in 1997, the late architect discussed his beginnings in the field.

“When I graduated in agriculture, Stanley Thompson offered me a job,” said Moote. “He gave me a pick and shovel and sent me to the Maritimes. He asked me what I’d like to do in the coming winter. I said I’d like to take some drafting so I can put more on canvas. I did that and we went to Toronto and got so busy. We never slowed down. We’d work all night and get up early in the morning.”

From these beginnings, Moote would go on to carve a legacy in the industry spanning more than 60 years. The architect went on to head Moote Golf Architects with his son David, and joined the American

Society of Golf Course Architects in 1980. He was elected as an ASGCA Fellow in 1996.

“Dad could best be described as a ‘contemporary traditionalist’ in his design work, diligently and altruistically respecting the evolution of the game with strong layout routings proven to withstand the test of time,” says David Moote. “His work is characterized by strong

designs included the courses at Silver Lakes Golf & Country Club in Newmarket, Ontario; Lakeridge Links in Whitby, Ontario; Dundee Resort Golf Course in West Bay, Cape Breton, Nova Scotia; and North Halton Golf & Country Club in Georgetown, Ontario—a particular favorite of the architect.

“Dad often mentioned North Halton G&CC and this comes to

“His work is characterized by strong aesthetics, a focus on fair play for all, adventuresome creative proactivity without gimmickry

aesthetics, a focus on fair play for all, adventuresome creative proactivity without gimmickry. His designs support the respectful co-existence with and propagation of inherent environmental inter-relationships, as well as responsibly sustainable agronomic maintenance and ongoing business viability.”

Bob Moote was most prolific in his native Canada, where his

mind for its pre-golf pastoral, river valley setting nestled in rolling hills with many natural green and tee sites,” says David Moote. “The course is speckled with naturally strategic mature indigenous trees. Dad was ‘at one’ with this property from his first walkabout to the finished product.”

Moote’s legacy extends further afield. In the early part of his career,



North Halton G&CC in Georgetown, Ontario, is one of the designs that Bob Moote was most fond of

the architect worked with Seth Raynor and Stanley Thompson to design the Somerset Country Club course in Mendota Heights, Minnesota. Moote also reworked another Thompson-design in Jamaica at the Manchester Club—home to the island’s oldest course. Moote returned to Jamaica to design the course at SuperClubs Ironshore Golf & Country Club in Montego Bay, which was built in 1972.

“He always put his heart and soul into his work—be it a design of his own, work with the venerable great Stanley Thompson, with his fellow Thompson colleagues Robbie Robinson, Howard Watson or Robert Trent Jones, Sr. [all ASGCA Past Presidents], with his brother Davis S. Moote, or with me,” explains David Moote.

In his interview with *Golf Course News*, Moote discussed his golf design philosophy.

“You’ve got to go when the spirit moves,” he explained. “To me that’s what the allure is—getting lost in a project, deeply entrenched in it. You have to look at so many facets. You’re building it for generations, not just for today. You have to get lost in your projects, completely and without distraction. People may look at you like you’re quirky and off the wall, but that’s the way it is. I think there is something similar between the best architects and the best superintendents. The best superintendents aren’t necessarily at the best courses and don’t have the biggest budgets. The guys at mid-range have to use their ingenuity and really best find the level that suits.”

His son speaks of a calming and honest presence out on the course.

“Dad enjoyed his life and in his own approachable, welcoming way brought happiness and calm to the

lives of those around him—be it on a professional or a personal level,” he says. “Dad made clients, colleagues and peers feel good no matter how perplexing, tense or time-sensitive the challenge was. Principles and pride stand tantamount in his golf architectural pursuits.”

“Bob created fundamentally sound golf courses that were cost effective to build and maintain,” says fellow Canadian golf course architect ASGCA Past President Doug Carrick, ASGCA. “His design philosophy was very pragmatic and sympathetic to the requirements of good golf course maintenance practices. Through his thoughtful design approach, Bob built affordable golf courses that appealed to a wide range of golfers.”

Bob Moote is survived by his wife, Isobel, sons David and Stan, their wives, six grandchildren and six great-grandchildren. ●

More for less

An updated irrigation system at Atlanta Athletic Club delivers savings in water and resources.

Atlanta Athletic Club, located in Johns Creek, Georgia, is a world-renowned private club that has hosted numerous professional golf events. Its Riverside and Highlands courses were designed by ASGCA Past President Robert Trent Jones, Sr. They were redesigned by ASGCA Past President Rees Jones, ASGCA, in 2003 and 2006, respectively. The Highlands course, originally built in 1964, has hosted the Ryder Cup, U.S. Open, U.S. Amateur and several PGA Championships, with the most recent taking place in 2011.

The 2006 redesign included replacing a 25-year-old irrigation system along with other course updates. The 2006 system was a conventional, satellite-type system with sprinklers on valve blocks, meaning two, three or as many as four sprinklers were wired together and activated by a single valve or station. All irrigation pipe and fittings were replaced during the 2006 renovation.

Change is coming

In 2015, Lukus Harvey started in his new role as director of agronomy for Atlanta Athletic Club. Harvey hit the ground running, and following two months of intense due diligence, he presented the club with a proposal to re-grass the Highlands course and rebuild its greens and bunkers. As he waited for the club to approve those updates, Harvey decided to investigate converting from the 'block'-style irrigation system to

single-head control—and fast. He knew he would have to economically justify any system updates, as he would be suggesting the club spend additional money on what could be considered a relatively new irrigation system by modern-day standards.

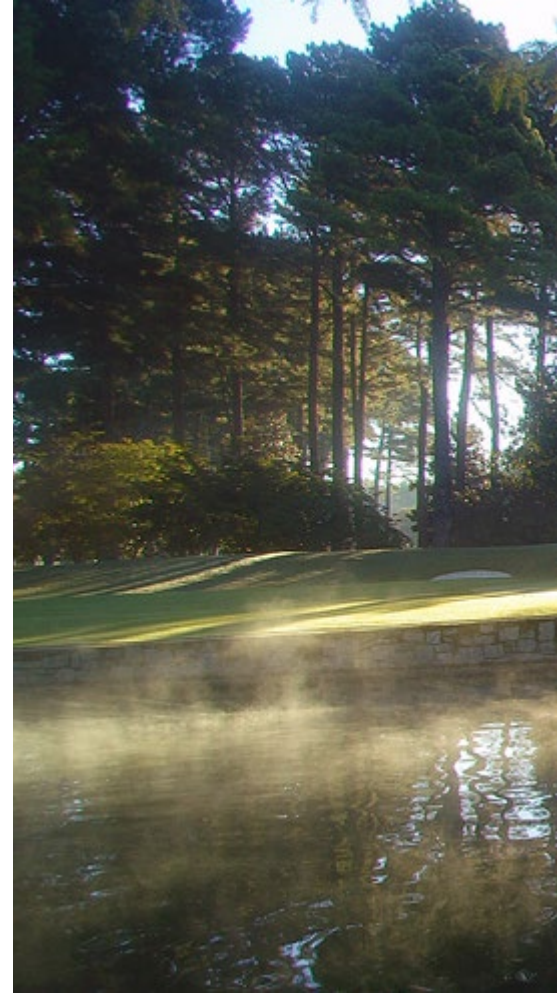
The club ultimately approved the renovation. In the meantime, Harvey and his staff had decided that they needed the precision control available with valve-in-head sprinklers and single-head control. After much research and fact checking, Harvey and his staff determined that the existing piping network was sufficient to maintain the course after its renovation. The network had experienced few pipe and fitting failures over the past ten years, and it still featured an optimal mainline and lateral size and solid installation. Harvey and the Atlanta Athletic Club

“The different turf types being grown on the newly renovated course had their own unique water requirements and management needs

felt confident that the existing piping network would last for years to come with little maintenance, making it possible to irrigate the course to the tournament-level conditions they wanted to provide their members.

More importantly, they felt the existing sprinkler-head spacing in the fairways and other areas was satisfactory, and, with the new, more efficient sprinklers, they would enjoy increased water and resource savings for many years.

From there, Harvey and his staff began to evaluate the most economic and practical way to convert the existing sprinklers to single-head control. Changing the block-style sprinklers to valve-in-head sprinklers





became a more appealing option. They chose Rain Bird's Integrated Control (IC) System to give them both the single-head control they desired and the most advanced technology and system diagnostics available for golf courses today.

Construction begins

Bidding for the golf course's construction and irrigation opened in September 2015. The club selected Landscapes Unlimited for the greens, bunker and re-grassing work, and Stahlman-England to install the IC System™. Work began in early 2016 under the watchful eyes of golf course architect Jones and his colleague Bryce Swanson, ASGCA.

Construction followed an aggressive schedule with grassing to begin on the greens no later than mid-July of that year. This meant the irrigation system would have to be installed quickly.

During construction, Landscapes Unlimited completely rebuilt the greens with new drainage, soil mix and TifEagle bermuda grass for the putting surfaces. The tee tops, fairways and greens surrounds were

also re-grassed, but the contractors first removed the top four inches of native soil and replaced it with an all new soil mix. Tees and fairways were sodded with Zorro Zoysiagrass and TifGrand bermuda grass was chosen for the greens approaches, which are maintained at a very low mowing height. The roughs also received a makeover and were sprigged with Tifway419 bermuda grass in early September.

Irrigation installation

The different turf types being grown on the newly renovated course had their own unique water requirements and management needs. Thus, it was important that the new irrigation system could apply water to them independently of other areas and with precision and flexibility. To accomplish this, Harvey and his staff selected the most efficient nozzle and sprinkler combinations. They also added part-circle rotors to feature perimeters, allowing them to apply water uniformly and only when and where needed.

Another benefit of the new two-wire system was its easy, fast installation.

The IC System manages power and communication protocols over a single-wire path, making field controllers unnecessary. It features the largest capacity of sprinklers/intelligent modules per wire path in the industry, decreasing the number of different wire paths and interfaces needed for lower upfront and long-term maintenance costs. The simple, streamlined installation process results in minimal course scarring, with conditions back to normal in a matter of days.

Ground-penetrating radar and tracking equipment located existing drainage, underground utilities and buried tournament infrastructure before installation began. This preventative measure kept existing equipment safe from the vibratory plow that would be used to lay in the new communication wire. The existing block system's electric valves also had to be addressed. With the new valve-in-head system, these old valves would be obsolete. The team decided to leave the existing valves in the system but remove their internal diaphragms. This saved unnecessary labor costs associated with removing the entire



The irrigation system was updated in 2016, giving the club greater control and saving water and resources

valve from the pipeline. The existing satellite controllers were also now obsolete with the new system, so they were removed from the course.

To install the two-wire system, Atlanta Athletic Club's staff seamlessly installed new communication cables to every sprinkler head location with little to no golf course impact. With the new IC System, the existing satellite controllers became irrelevant and were removed. This also provided many advantages, including lower maintenance costs, no above-ground equipment to maintain and no visual obstructions to mar the course's natural aesthetics.

Realizing the long-term benefits

The new, state-of-the-art system on the Highlands course came in at a one-third of the cost of a complete irrigation system replacement, and its benefits are numerous. With the new system, Harvey was able to exceed all of his goals and expectations for a fraction of the price.

Along with increased control and cost savings, Atlanta Athletic Club has already experienced the anticipated water savings they were promised. Harvey and his staff are taking advantage of advanced features available with Rain Bird central control, including RainWatch™ and AutoET. Using data transmitted through the IC System wire path

and from rain catchment devices throughout the Highland course, the central control software automatically adjusts runtimes based on natural precipitation received during irrigating hours. Staff also use onsite weather and soil moisture data to program irrigation daily. All irrigation decisions are automated based on real-time inputs from the field, allowing for the most efficient system scheduling possible. This proactive water management strategy has reduced the amount of irrigation water being applied to the Highlands turf by 30 percent while improving conditions and playability. Atlanta Athletic Club pays for a reclaimed water source, so its return on investment will add up quickly. The club has also noticed a 50 percent reduction in the amount of labor hours spent hand watering.

For the next phase of the project in Spring 2017, the club installed a Rain Bird pump station to replace the inefficient, 23-year-old station on the Highlands course. The new pump station will be able to communicate with the central control software and allow the course and its staff to benefit from SmartPump™ software. This software effectively compares the pump station's actual flow and pressure with the theoretical flow in central control. The intelligent, two-way communication recognizes pipe breaks and motor failures as well as

soft and hard power shutdowns and reacts in real-time to save water and energy costs, notifying the staff when there is an issue. The software will also allow them to maximize pump station capacity and reduce their water window even more.

When asked if he would do anything differently, Harvey replied confidently: "We achieved all of our goals on this renovation, including getting a new, state-of-the-art irrigation system that gives me the ability to apply water in the most efficient manner possible at a fraction of the cost. I can't imagine doing anything differently". ●



Ian Williams

Ian Williams is the National Specification Manager for the Golf Division at Rain Bird. He helps golf clubs across the United States to develop optimum irrigation solutions for their courses.

AMERICAN SOCIETY OF GOLF COURSE ARCHITECTS MEMBERS' WORLDWIDE REACH

OUR MEMBERS...

HAVE DESIGNED COURSES IN

92

DIFFERENT COUNTRIES



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AVERAGE NEW 18-HOLE
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AVERAGE YEARS AS A
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22



AVERAGE 18-HOLE
COURSES REDESIGNED



Fresh thinking

The American Society of Golf Course Architects elected five new Associate Members to join its ranks at the society's 2017 Annual Meeting in Jupiter, Florida, this May. *By Design* caught up with the five selected architects to find out more about their work and what becoming an Associate Member means to them.

How did you get into golf design?

Thad Bell, ASGCA Associate: I've always had an interest in golf, as I started playing from a young age and was involved in junior golf programs in South Carolina. Playing the sport got me interested in how golf courses were designed. While studying landscape architecture at the University of Georgia, we had some case studies on golf courses which furthered my interest in golf course design. I was fortunate to have a group of contemporaries

in my years at school, and we all started in golf course design around the same time after graduation.

Brandon Johnson, ASGCA Associate: Like a lot of kids, after being bitten by the golf bug I wanted to be a PGA Tour pro, but I missed that by a long shot! I blindly went into landscape architecture to pursue golf course design but quickly realized how interesting urban planning and design, historic landscapes, and large-scale master planning can be. Fortunately, my love and passion for golf, art and architecture won out. The internship

opportunities at the PGA Tour Design Services office, and the completion of my Bachelor of Landscape Architecture final project at the firm of ASGCA Past President Rick Robbins, ASGCA, while attending North Carolina State University, became my stepping stones into the profession.

Sean Quinn, ASGCA Associate: My dad was a golf professional and superintendent, so I grew up playing the game from an early age. I aspired to be a pro one day, and played junior golf into my early teens. Then there were too many other

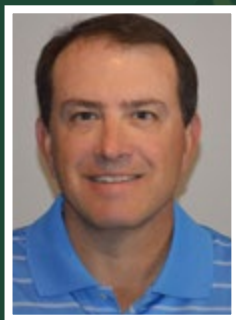
ASGCA's new associate members



Gene Bates
Bates Golf Design Group



Thad Bell
Ernie Els Design



Mike Gogel
Mike Gogel Golf Design



Brandon Johnson
Arnold Palmer Design



Sean Quinn
Nicklaus Design



Photos: Arnold Palmer Design

distractions in terms of school sport so golf took a back seat.

Early in my working career, my dad introduced me to a design and build company called Golf Data. One of the partners, architect Mark Muller, was the first designer I was exposed to. After working with Mark for a period I knew what I wanted to do.

Mike Gogel, ASGCA Associate: I first got into design through golf course construction. While still in college, I wrote a letter to ASGCA Past President Bob Cupp, asking just that question. Mr Cupp responded with a three-page letter basically outlining what he felt was the best track for a person to follow to become a well-rounded designer. That track included a degree in something where computer graphics are utilized and to then go work for a construction company for '18 months to two years'.

I received my degree in Industrial Engineering with minors in Graphic Arts and Horticulture, and upon graduating I spent the next five years working for Paul Clute and Associates and Wadsworth Golf Course Contractors. My first job with Clute was installing greens drainage and spreading pea gravel and the choker layer on a course in Owasso,



Brandon Johnson, ASGCA Associate, has recently worked on the new Lakewood National courses near Sarasota, Florida

Oklahoma. From there I progressed through the ranks, learning how to operate any piece of equipment on a job site, as well as managing people. Ultimately, I ended up as a construction superintendent.

Following this, I was offered an opportunity to go to work with Tripp Davis, ASGCA, and his design firm. This is where I truly learned the most regarding golf course design. Tripp was patient enough to teach me all the ins and outs of design, from presentations to developing a comprehensive set of plans and project specifications. Tripp allowed me to be a part of each project in the field, as well allowing me to offer my design ideas, which helped me grow as a designer. I can honestly say I would not be where I am today were it not for the opportunity to go to work with Tripp Davis and his design firm.

Gene Bates, ASGCA Associate: It was totally by accident! I married the daughter of Ron Kirby, ASGCA

Fellow. Ron was doing some work in the Philippines and came home at Christmas 1978, and while he was back had an unfortunate heart attack. He had to go right back to the Philippines to meet some obligations. I came from the heavy construction industry but I played some golf—not anything of any great caliber but since I was a construction guy he asked if I could go back to the Philippines and oversee some of the construction activities and so I did. I got there and I got into the world of golf construction and design. That's when I decided to stick with this industry and I've been there ever since.

What does ASGCA membership mean to you?

BJ: While the journey to become a golf course architect has been long, unpredictable, and at times difficult, the vast majority of the trek has been filled with priceless memories and meaningful professional experiences.

Gaining membership into the ASGCA is not just the culmination of luck, hard work, support and inspiration from the work of members past and present, but marks a special point in my professional career where I fulfilled a personal goal, along with gaining the respect of my professional peers. I look forward to meeting all the members, talking architecture and hopefully continuing to learn and be inspired.

TB: Ever since I started working in golf course design, becoming a member of the ASGCA has been my professional goal. Being a part of the ASGCA golf course design legacy and having my completed projects recognized within the profession is something I consider to be a major achievement.

SQ: I've been in the industry for 25 years as a builder, project manager, design coordinator and now designer. I've been incredibly fortunate to have worked with and learn from some amazing architects

as well as countless other industry related professionals. When the opportunity to join the ASGCA presented itself, I did not think I would or could qualify.

To be recognized among such an esteemed group of individuals at the ASGCA as a South African is still surreal and far exceeds any expectations I ever imagined.

MG: Being a part of the ASGCA means being a part of something much larger than yourself. As friends and peers became members, they relayed their positive membership experiences to me. The more I learned about the association, the more I wanted to be a part of such a special and distinguished group. The opportunities available, from the collaboration and sharing of ideas with fellow members to working to highlight the golf industry and hopefully expel some of the myths linked to the game, can be a catalyst to growing both personally and professionally. I also feel being a member provides additional

credibility within the industry.

GB: ASGCA membership is a nice add on to what has been a long career. I had my arm twisted by my father-in-law and some other guys in the society who told me 'come on, it's time to get in and join this, you know everybody and you respect them and they respect you so come and be part of our organization'. They voted me in and I'm delighted they did so.

Tell us about one of your current projects.

BJ: Last summer I worked on the first of two courses at Lakewood National outside Sarasota, Florida. The second course is currently in design with construction starting in the not too distant future. While this course is being built on adjacent and identical property, our ability to create broad sweeping elevation changes will be limited so the fun factor, variety, strategy and interest will be created in different ways. I'm excited for the challenge of creating a second, distinctly different, yet complimentary course for the membership.

TB: Eco Park in Hanoi, Vietnam, is one of the more recent projects where we have just completed the Els

At Eco Park in Hanoi, Vietnam, Thad Bell, ASGCA Associate, helped to create a practice area, short game facility and nine-hole course. The next phase will be an 18-hole course.

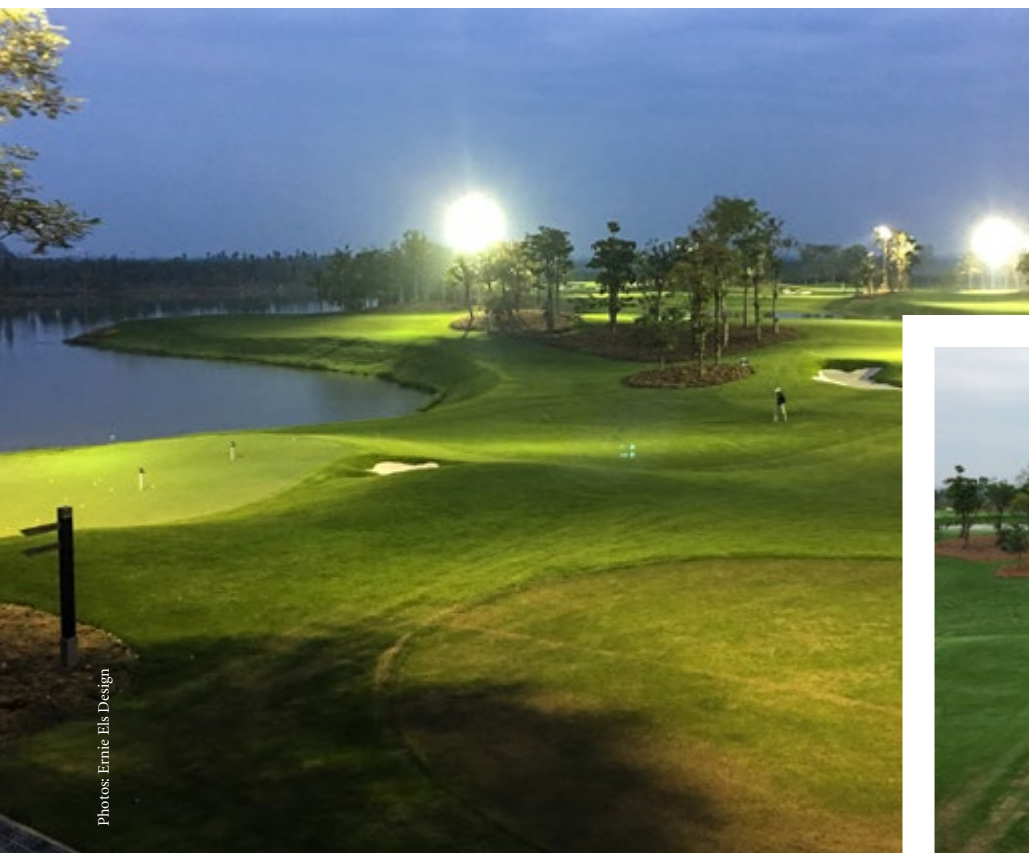




Photo: Mike Gogel Golf Design

The Ranch course at Tonte Verde Golf Club in Rio Verde, Arizona, was renovated by Mike Gogel, ASGCA Associate

Performance Golf Academy as part of the first phase of raising the profile of golf within Vietnam. The practice area and short game area are open for play and the nine hole par three course will open for play September 2017. The next phase will be the 18 hole golf course, which is routed along interior waterways of the site to create a parkland setting. We are working with the developer to fulfil their vision of integrated golf and resort living, which will make Vietnam one of the next exciting phases in the development of golf course design.

SQ: The Kings Course is a Jack Nicklaus II, ASGCA, signature and is one of four projects I am busy with currently that's under construction. The site is located an hour's drive west of Hanoi, Vietnam. The new course will be the third course at Kings Island, with nine holes located on the edge of a large lake and the other nine playing through a forest. Planning for the project commenced a year before

construction began in mid-2016. We have a great team of both expat and local shapers on site, however I will still personally paint all the bunker lines and float all the green cores and surfaces, which I love to do. Given my construction background, I find it incredibly fulfilling being involved in a project from the conceptualization right through to the last stages of implementation.

MG: I am currently finishing a bunker renovation for a club here in Phoenix, Arizona, and I am working on a full renovation at The Jayhawk Club in Lawrence, Kansas. The Jayhawk Club is a course that is very near and dear to my heart. I think we all have dreams of being able to go back 'home' and transform a course from our childhood or college years. The Jayhawk Club is that course for me. My family lived in Lawrence during my early years, and we grew up as Jayhawks. My parents played the course while they were at the University of Kansas

and again when we moved back there in the mid-70s. To be able to go back to the area I consider home and have the opportunity to redesign and update the course as a part of a major upgrade to the entire development is very exciting. Having the opportunity to design a course that will challenge future generations of Jayhawks is clearly a once in a lifetime experience.

GB: I've spent the last four years here in Park City, Utah, building an 18-hole golf course at the Canyon Resort and I honestly have to say, due to the terrain and geology of the site, and the constraints of working in a ski resort, this is undoubtedly the most difficult golf course that I've ever designed and been a part of. I'm really proud of the results though—the golf course looks magnificent and it adds a four season component to the ski resort. It's been quite a challenge so I'm happy that it's over, but the results are very satisfying. ●

What will make the course truly memorable is the strength and quality of the par fours



Garrett Gill, ASGCA

Having followed his father's footsteps into the golf design business, Garrett Gill, ASGCA, established his own firm in River Falls, Wisconsin, in 1985. His designs include Legends GC in Prior Lake, Minnesota and The Meadows at Mystic Lake in Shakopee, Minnesota, both of which appeared in *Golf Digest's* Best New Course of the Year Awards.

How is your game?

I'm a bogey golfer. Technology is no longer able to keep my scoring static. I play with the same enthusiasm, spirit, love of the game and competitiveness, but my score continues to climb. I'm not capable of doing anything tricky or fancy. I can hit the ball left, right, low and high, just not on purpose.

Which three people would make up your dream fourball?

My father, mother, and my good friend George Williams. My father, David Gill, was a golf course architect. During high school, college and graduate school we worked together. We traveled and played a lot of golf together. His clients truly liked him because he was honest, hardworking, and always looked after the high handicapper in his designs.

My mother is in my team because she was a 40 handicapper and because she truly didn't care what she scored

but played for the pure fun of it and the camaraderie. Always had a smile, many kind words for any kind of shot she or others would make, and rarely complained. She was known at the golf club we grew up on being more concerned with the quality of apples she would often pick from the course and bake with, than the speed or condition of the greens.

My mother and father have passed, but I hope soon to get some more golf in with George. It's been too long. George and I met in graduate school at Texas A&M and worked together for many years. What I've learned from George is instinct and determination. Besides being a great friend, good golfer, funny and a sportsaholic, George has an architectural instinct that guides him in the creation of some truly great golf courses and golf holes.

What is your favourite hole in golf?

The par four. I find it easier to design the par three or five hole. The architectural challenge, in my opinion, and what will make the course truly memorable, is the strength and quality of the par fours. An architect can use the par four hole in so many different ways and configurations. As much as a melody is to music 'a sequence of notes that is musically satisfying,' the par four is the melody in the round. From short to long, easy to hard, it's how and

where the architect puts them together that makes the golf course great.

If you could change or add one rule, what would it be?

I'm in agreement with making the rules simpler. A recreational rule set might allow grounding the club in a hazard or even eliminate the classification of the sand bunker as a hazard, or it may allow playing any out of bounds as a lateral hazard. What I wouldn't approve of is a rule change that would allow the golfer to 'tee it up' in the fairway as one of my brothers likes to do. I would agree with rule changes that keep the game honest, fair and fun.

What project are you currently working on?

My team is currently working with KLJ Engineers on a new 18-hole golf project for the Minot Park District in Minot, North Dakota. The motto for Minot is 'Why not Minot?' and I cannot agree more. It is a wonderful city, with great people and we have a beautiful but rugged site within the Souris River valley. The project, currently in the master planning phase, brings a regional scale park and a golf course together. This is a challenging project with many components and constraints, but when complete should truly be a unique experience for the park user or golfer. ●



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