

been a great era for Pinehurst, but I embraced the changes very quickly. I had to convince them that I wouldn't be offended when they suggested that less turf and less irrigation was better. I'm not bothered by it— I'm excited about what we're uncovering.

**Uncovering? That's an interesting choice of words.**

That's what we're doing – uncovering what used to be there. It's not a restoration and it's not a renovation. We're peeling back layers of years of improvements. If you look at a set of irrigation plans, and you peel a decade's or two of heads we've added it takes you back to something different and more interesting. It's like finding an old painting in the attic with layers and layers of paint and you peel them back and to find a Rembrandt underneath.

**The old irrigation plan has dictated a lot of this, right?**

It's essentially back to the centerline plan from the 40s and 50s. We've gone from 1,100 heads down to 450. The old line is still out there, so we pulled a tape measure from that line about 70 feet or so both ways and that became the new fairway line. That's the backbone we're working from.

**Other than the original irrigation lines, what's your benchmark for the work?**

We have an aerial photo that was taken on Christmas Day in 1943. The quality is amazing considering how old it is – you can actually see people playing golf. I can't really say who took it or why it was taken, but we're pretty close to Ft. Bragg and this was during the war so you can draw your own conclusions. That photo has been an inspiration for Bill and Ben – it's been a huge source of information and ideas – but we're not trying to duplicate it.

**I hear Crenshaw's been there a lot. What's it been like working with him?**

One thing that's been amazing is his approachability and his casualness. He and Bill like to walk the course. They both have a great distaste with riding on golf cars. And they haven't worked on a lot of courses that are open for play so they're interacting with golfers. It's funny because Bill wants Ben's full attention and wants to get things done while he's on site, but Ben loves just to go up and talk with golfers. He usually initiates it. He loves being here and getting out there on the course and hearing what players think. Lots of our guests have gone home with stories



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about how Ben Crenshaw interrupted their round at Pinehurst.

**Other than the sandscapes, the big focus seems to be on fairways, right?**

Ben's goal is to put strategy back in to the course. There's no strategy with a 26-yard-wide fairway, but with a wider landing zone you have to think more about the approach.

It'll require you to think about positioning, not just hitting a landing zone. In fact, we're trying to get away from even calling them fairways – it's just turf where the ball lands.

**Do you get longer to compensate for the new widths or do the tougher bunkers achieve that goal?**

We have added a few tees and added a little

length to offset some of the broader landing areas. On holes 2, 7, 16 and 17 particularly where the fairways are nearly twice as wide, so we pushed them back a little. Now Kevin Robinson, our superintendent, has a big challenge getting those fairways firm again to get bounce and roll, so he has a pretty extensive topdressing program going on.

**What else will be different?**

We'll only have two cutting heights – putting surface and everything else. You'll start from the tee and the turf just goes from there to the greens surrounds. No first cut, second cut or rough lines. It's kind of like when I first came here and we had a guy with a tractor and a set of gang mowers. The cutting units never left the ground from first tee to 18 green if you didn't have to refuel. Everything that's not a putting surface will be mowed at ½-inch.

**Kevin kind of got thrown into the middle of this process. How's he doing?**

He was totally prepared and he's loving every minute of it. Kevin's a guy who started as an intern here 20 years ago. He came over to take this on from No. 6 and No. 7 in June. He's absolutely laser-focused on the concept and doing an outstanding job. He's obviously working closely with Bill and Ben – one of them is here at least once a month – but Toby Cobb is their on-site guy and he and Kevin work together nearly every day.

**Okay, how much has this cost?**

It's hard to characterize, but it's safe to say we'll spend more than a million dollars on this. It sounds contrary to what I said earlier, but this isn't about money. We certainly expect to make money because of it, but this is not a business plan to save money. Really and truly, it's about our role as the trustee of this property and getting it right.

**Final thoughts?**

We're doing all of this to position the No. 2 course where it needs to be for the success of our entire business model for the next 50 years. We want its place in history – its stature – to be ensured for generations. We're recreating our past to build our future. GCI

Pat Jones is GCI's publisher and executive editor.

Check out this month's online extras for more Q&A with Bob Farren and more pictures from Pinehurst No. 2.



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## A CART PATH CONSTRUCTION PRIMER

**B**ack in 2004, I wrote about cart path design, and that it is only half the equation in a successful cart path project. Many courses add paths each year, with bad results and poor construction. With today's cost-cutting culture, I suspect more cart path projects will be done in-house and with low-cost contractors. So, I offer some thoughts on building cart paths correctly. As with all the other generalized advice, this column is no substitute for determining a program based on your site-specific conditions, but covers the most typical problems I have seen.

**REINFORCEMENT.** Most cart paths are built using only "fiber mesh" reinforcement, usually for speed and cost reasons, whereas most concrete work is reinforced with wire mesh or re-bars.

Fiber mesh increases tensile strength and controls hairline cracks caused by shrinkage. However, finishing can be harder to do well, and it's a non-load bearing surface. If you are using only fiber mesh, you should consider increasing pavement depth from 4 inches to 4.5-5 inches.

You need more reinforcement if you have expansive clay soils, slopes over 5 percent or extreme temperature variances. You may also have a few areas carrying heavier loads – often near the maintenance area – that require extra reinforcement. Most specs call for the reinforcement in the vertical center of the pavement, but setting and keeping the mesh or re-bars within  $\frac{3}{4}$ -1 inch of the top surface, during concrete pouring, is the only way to get any benefit in crack control.

**EXPANSION AND CONTRACTION JOINTS.** Approximately  $\frac{1}{2}$ -inch wide wood or rubberized expansion joints are required adjacent to any structural elements, and along the path. There is a formula that varies with temperature extremes and soils, but maximum spacing is 80 feet. Contraction joints sawed partly through the concrete are placed even more frequently to control cracking, with a good rule of thumb being to place  $\frac{5}{8}$ -inch-wide joints at the lesser of 1.5 times either the width of your pavement (12 feet apart for an 8-foot-wide path) or the depth of your pavement (6 feet apart for 4-inch-deep concrete). And in bigger areas, like turnaround circles, you must have them at no more than 180 degree angles to prevent cracking pavement.

**SUB-BASE.** The best base material is usually to cut the path into native soils, with no sand or aggregate leveling course required. Just don't cut so deep as to leave drainage problems and compact to 95 percent standard proctor density – which is usually easy to attain with rollers. Import fill used to raise the base must be similar soil material or you will have different shrink/swell conditions which lead to cracking. Gently wetting the sub base prior to installation achieves optimum soil moisture and minimizes cracking down the road.

**MATERIAL PROFILE.** Most cart paths are 3000 psi concrete strength. I specify six-sack rather than five-sack concrete mixtures, which often yields over 4000 psi. The additional 20 percent concrete

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### Many courses add paths each year, with bad results and poor construction.

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cost yields another 33 percent of strength and is a good value. It's also becoming more common to use fly ash as 10-15 percent of the cement mixture, which reduces heat in the hydration process, is cheaper and produces a harder, denser surface.

Each project should have a unique concrete mix, so there are other concrete components to be aware of. For example, site conditions sometimes require use of air entraining, water reducing to achieve a lower water-to-cement ratio for greater strength using less cement and retardants or accelerants to slow/speed drying in hot/cold weather.

You will also need to consider extras like colorants, sealants and textural finishing to attain your desired results.

**KNOWING MORE THAN THE CONTRACTOR.** Its imperative you know all of the above and more and that the contractor *knows* you know it. Testing and inspection is the key to quality work. You will need periodic samples tested as they come from the plant, and there are many in field tests, like slump tests, that will verify you get the concrete you specified. Be diligent. In cart path construction you don't get what you expect, you get what you inspect! **GCI**



Jeffrey D. Braxton is a former chief executive officer and president of Golfcourse, a full-service design and construction firm. Under a new president, the firm is now a general contractor. Braxton's new role is to help the firm's clients understand the value of their investment in the industry.



# You Can't Always Get What You Want

BUT IF YOU TRY SOMETIMES...

BRUCE WILLIAMS ON THE ART OF

## SALARY *negotiation.*

by Bruce R. Williams, CGCS

My father used to tell me that all someone can ask for is an honest day's pay for an honest day's work. Few would debate that. However, the definition of an honest day's pay (fair compensation) may differ greatly between employer and employee.

Over the years I've worked with many clubs and superintendents to develop and negotiate fair compensation packages. And negotiations go far beyond compensation and benefits and it is a skill set that most superintendents lack.

A few decades ago, compensation packages were fairly simple, but now there are many methods in developing a creative package that works for the club and the superintendent.

Generally speaking, a superintendent must do his homework and learn all he can about compensation rates in his respective market for golf courses similar to his own. And it is no fluke that areas of the country where superintendents share their compensation information also tend to be more successful in their negotiations. Knowledge is power when you can go to the negotiating table with solid compensation data.



**“A few decades ago, compensation packages were fairly simple, but now there are many methods in developing a creative package that works for the club and the superintendent.”**

#### A STANDARD.

Once an appropriate range for compensation is established then it is time to examine the benefit package.

I often hear clubs have the “standard” benefits package. Is there really a standard benefits package anymore? Investigate what the package contains and how it impacts your bottom line as compared to other courses. There will be things that are very important to you and more valuable to others. For example, younger superintendents will value health insurance coverage for their families more than life insurance.

Also, be aware of tax implications for your compensation and benefits. Taking advantage of things like deferred compensation and 401(k)s can defer your taxation until retirement when it is likely you will be taxed at a much lower rate.

After establishing the market-appropriate salary range it is time to discuss with your current or future employer what each side has to offer. List what is important to you and always be ready to discuss concessions that may come up in a negotiation. In the current economy it is not uncommon to receive requests for salary or bonus adjustments or for an erosion of benefits. Should this come up be prepared to counter those issues with viable alternatives. If a club historically offered a bonus and recently eliminated it then it would be wise to counter with a potential increase in vacation time or some other benefit of equal value.

#### CAREER STAGES.

Every superintendent goes through various phases in his or her career. Here are a few common examples of what an individual might ask for along his career path.

At the early stage of a superintendent’s career compensation will be toward the lower end



Clubs often claim to have the “standard” benefits package. But is there really a standard benefits package anymore?

of the overall salary spectrum. And until an individual proves himself, there isn’t a lot of room for adding benefits. However, know the correct range for that particular market and that you are compensated in a range that is similar to your peer clubs. Too often I see a superintendent taking his first job at a price that is well under the standard market range. If it’s necessary to land the job, then I suggest a 5-year goal is set to get within the market-appropriate range. This may include defined step increases, such as pay increases of \$3,000 to \$7,000 per year, or it may include pay increases of 3-6 percent based on employer-defined criteria.

By the middle stage of a super’s career you should have a well-established employment record. Remember, there is value in experience and most employers are aware of this fact. This affords the superintendent more bargaining room. Typically, superintendents in the middle years of their employment are compensated

fairly. Their employers want to keep them as a valued asset to their team. They have a portfolio of annual reviews that are stellar and both parties want to continue the employment relationship in the immediate future.

Again, in this economy, pay increases are the exception and not the rule, so look at benefits to make up fair compensation.

So what works? From my experience, housing has been a significant superintendent benefit for decades. For example, many clubs in my native Chicago provided superintendents with on-site housing. And while few staff homes are being built on golf properties, that doesn’t mean this benefit is gone forever.

I have seen many cases where clubs opted to pay rent or help the superintendent purchase a home through a signing bonus/down payment or shared equity that diminishes over a 10-year period. This is a win-win situation as it assists the superintendent and entices him into long-term employment. Housing costs



should include utilities, taxes, monthly payment and standard upkeep. Keep in mind the cost of living variances between major metropolitan and rural areas. These cost of living adjustments are negotiable because it will cost you more to live in Los Angeles than in Lincoln, Neb.

In the later years of employment, and at higher salary jobs, there are options for developing a creative compensation package.

Utilize the current compensation info for not only your area but clubs that are similar in both your geographic area and across the country. Multi-course facilities should be compared to similar properties. Top 100 courses should be compared to similar courses in that particular niche. Also, it's important to know the overall financial health of the facility and what you can do to improve its financial position. Better course conditions lead to more guest fees, green fees and memberships where appropriate.

Again, housing is a viable option as compensation, especially at high-end properties. Evaluate your health care plan and see if the employer will pick up your family costs. Life insurance becomes a higher priority at this stage of your career. Be sure the policy is transferable if you choose to keep it at retirement. Dental and vision insurance are nice add-ons, especially if the employer pays the premium for your family.

Each facility has its own parameters for either deferred compensation or retirement programs. Check with the employer to see what they are able to offer. If there is little or no opportunity here, then you'll need to beef up the base salary. Higher end facilities may offer programs that put 2 percent of the individual's income into a retirement account and match up to 4 percent. If your income is \$150,000 then the club would be placing \$3,000

into your retirement account and if you placed \$6,000 into your own account then the club would match that with another \$6,000. At \$15,000 per year and the ability to have that grow with interest (tax-deferred) over time is a wonderful long-term strategy for financial security. While current interest rates are low, the value of compound interest is often overlooked.

Vacation time has value but is seldom considered in a compensation package. Many businesses offer one week of vacation for one year of service and then that increases to two weeks after two years. While this is normal for most businesses it does not con-

sider the hours and days required to perform the job of a golf course superintendent. Most superintendents work long hours, including holidays and weekends. Argue that, while long hours are a part of the job, it is reasonable to receive time off for paid holidays and/or time that requires you to work a seventh workday in a week.

And in tough economic times you can more easily negotiate additional vacation time than more salary. If the course is in fantastic condition and your reviews are all positive – but the club is not raising salaries – then it is time to ask for more time off. This not only includes vacation, but also to receive outside compensation on your own time with the approval of the club. This then allows you to consult with other clubs.

#### **BONUSES.**

Bonuses are another negotiation tool and there are various types of bonuses that apply.

Performance bonus is the most common and a pre-approved value or percentage of the salary

is set aside for the superintendent to earn. The basis for the performance may reflect fiscal performance – such as staying within budget – but developing strategies that reduce long-term costs. Performance criteria should be written and measurable. This provides clarity and is fair for both parties during the negotiation.

#### **RELOCATION**

When relocating, it is a standard business practice to have the employer cover reasonable moving expenses. Most employers would consider covering the cost of a moving company. However, there are a number of subtle expenses associated with a move

negotiation points. The following are examples of existing forms of compensation that I am aware of or have helped to negotiate.

Golf ball concession on the ponds can be a small revenue source. There are also bonuses for project management, construction or significant tournaments are common. Then there are goals such as the development of an Audubon Cooperative Sanctuary Program at your facility, which can serve as a bonus incentive.

Some facilities provide annual stipends for maintaining GCSAA certification and also for serving as a volunteer leader in the golf course superintendent industry with your chapter or GCSAA.

**“Short-sided thinkers try to get the most up front without thinking of a long-term relationship... The ultimate goal is a win-win outcome that pleases both parties.”**

that can add up. There are costs for house hunting, mortgage fees and temporary housing. I suggest placing a reasonable value on those at the time of hire. Golf courses are like any business and there is an expectation that attracting the best candidate requires a financial expense.

#### **SEVERANCE.**

Nobody likes the word “severance,” but it's a business reality.

While most states do not require an employer to provide any severance it is a prudent discussion point to have with an employer. After all, the goal is for both parties to have a mutually beneficial agreement. Most agreements are part of a contract with the employer but can also be stipulated as a letter of agreement. Should the situation develop that it is time for a change of the guard at the facility it will make the transition much smoother for both parties.

#### **OTHER OPTIONS.**

There are many other possible

#### **FAIR AND REASONABLE.**

I cannot overemphasize that the whole premise of negotiating compensation and benefits is based on what is fair and reasonable for both sides.

Short-sided thinkers try to get the most up front without thinking of a long-term relationship. In any relationship the two parties must develop trust, a track record and mutual respect. The ultimate goal is a win-win outcome that pleases both parties.

A number of golf courses have seen the wisdom in this and have done and offered the right things to retain a quality superintendent for the long term.

Good luck and remember: You can get what you want if you negotiate correctly. **GCI**

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## BUNKER IRRIGATION

Recently, bunker face irrigation has become increasingly popular. As architects designed and renovated courses to have steep, grass bunker faces, the difficulties in maintaining these faces without irrigation became obvious.

Bunker face irrigation can provide significant improvement to the quality of the turf over time. Figure 1 shows a bunker face with irrigation covering only part of the bunker. You can see the irrigated side (right) is in



Figure 1

better shape than the non-irrigated side (left). There are ways to irrigate bunker faces that have been attempted over the years, but many lack the ability to maintain the face within tolerable parameters.

In the past, many designers assumed the green or green surround sprinklers would cover the green side bunkers or that an expanded fairway irrigation system would cover the fairway bunkers. In many cases, a double-row system would be expanded to a triple row that included part- or full-circle

sprinklers behind the fairway bunker. It was quickly determined, however, that large golf sprinklers were not adequate to maintain the face itself, as long runtimes were required and parts of the fairway and rough would end up overwatered. The same would happen around the green complex – the amount of water required was more than the surrounding turf needed.

Some courses then attempted to use small, residential-type sprinklers with a 30- to 40-foot

radius in a block configuration, but these still overwatered the surrounding area and did not provide adequate control.

Next, small, spray-type sprinklers were tried. The spray sprinklers were installed at the top of the slope above the bunker face using part-circle sprinklers in a block configuration with the number of sprinklers varying depending on bunker size and how much face there was to water. Spray sprinklers are somewhat fragile and also have a very high precipitation rate. The high-precipitation rate,

even when operated for a short time, caused the bunker to wash out. Cycle and soak was not an option given the short runtimes required by the high-precipitation rates. Despite the drawbacks, these type systems were the most popular solution.

Today's bunker systems utilize small, multiple-stream, multiple-trajectory (MSMT) type nozzles (Hunter MPRotators, Rain Bird Rotary Nozzles and Toro Precision Series Rotating Nozzles) on spray head bodies equipped with pressure regulating stems. MSMT nozzles have much lower precipitation rates than spray heads, in the 0.6-inches-per-hour range versus the 1.75-inches-per-hour range and higher uniformities. The sprinklers are still installed at the top of the slope and water just the area of the bunker that has the face. A 12-foot to 20-foot spacing works best. The sprinklers should be regulated to 40/45 psi for optimum uniformity. Their high uniformity, when compared to spray sprinklers, allows for reduced runtime, saved water and dryer sand.

Not all bunkers need to be irrigated, but those that are south-facing or with very steep faces should be. The flat part of the turf around the bunker will still be watered by the regular irrigation system. Individual valving per bunker is preferred, but bunkers with similar exposures can be valved together to save money. There are still maintenance issues with the sprinklers, but it is a compromise between good irrigation and slightly higher maintenance. **GCI**





# Cut to the chase

Verticutting is just a screwdriver in a box of tools. But, is it also a viable method to dethatch?

by David McPherson

Sometimes it all goes back to the turf textbook. And, sometimes, superintendents rely too much on what they were taught, rather than experimenting with new methods. Today's topic is whether a regular verticutting of your greens and fairways can eliminate the need to do a separate cultural practice to get rid of the thatch below the surface? Let's let a couple turf professionals and one supplier weigh in on this subject and then you can decide.

Darren J. Davis, director of golf course operations at Olde Florida Golf Club doesn't believe the two can be interchanged. He uses both methods as cultural practices at his course in Naples, Fla. First, he does a light vertical mowing using a Toro



Triplex greens mower with veritcut blades on it.

“We do that as needed to control leafiness on the putting surface and to increase the trueness of the ball roll,” Davis says. “It is an excellent tool if done light and infrequently to increase the speed, trueness and smoothness of the greens. I would never consider that a dethatching method though by any means. We are just barely getting to the surface, if at all ... just pulling up the leaf blades, and, we often go in two directions.”

Davis goes back to his turf school days and the definition of dethatching to explain why he believes you can't use a verticutter to also

“Light verticutting for me is grooming, perhaps it is just verbiage, but grooming for me means **removing leaf tissue**, whereas verticutting means removing sloughed off leaves and old roots or thatch. I groom to increase speed and smoothness on my greens.”

— Matt Shaffer, Merion Golf Club



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