HEN LEO PECHETTE arrived at Lakes Community High School in the exurbs northwest of Chicago, he thought he’d stepped into a grounds manager’s dream. It was the fall of 2003, and this brand new high school had just seeded its brand-spanking-new football field.

Nearly every grounds manager looks upon an inherited athletic field with some measure of trepidation: How old is the irrigation system really, and how sophisticated were the original construction techniques? How often has the facility been aerated, if at all? Where exactly are the drainage trouble spots, and how does the field generally bounce back from heavy rains, especially between the hash marks?

Pechette had plenty of worries at the start in ramping up all the athletic facilities serving a brand new high school. But the new football field shouldn’t have been among them.

Indeed, because Lakes Community High was a completely new school, and didn’t even achieve full occupancy until the middle of 2004, the football field accommodated no play whatsoever until the 2005 season. That’s an initial fall growing period, plus some 16 months of unfettered grow-in/root growth before a game was ever played.

You can see where this is going.

“We didn’t play on the field until the fall of 2005,” says Pechette, looking back, “and that was a dry fall. It looked great. But the next year we had a wet summer and that continued into the early fall of 2006. It didn’t take long before we were clued in to just how bad the drainage was.

“It just wasn’t built as it was designed, we learned,” says Pechette. “The contractor had short-cut the sand depth, for example. The way they graded the field, it settled poorly after a series of rainfalls. A lot of shortcuts were taken which, as far as I’m concerned, means the job wasn’t supervised properly. The contractor did a lot of road construction. Enough said on that.”

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Pechette and Lakes Community High School were obliged to rebuild after just four seasons of play. The $150,000 reconstruction was handled by Lohmann Sports Fields (LSF) out of Marengo, IL. Based on plans by the Vernon Hills, IL-based engineering firm Gewalt-Hamilton, Lohmann re-crowned the field by installing a tapered sand cap, while adding soil amendments to achieve the proper, drainage-enabling soil profile and a better growing medium. The perimeter of the field was aggressively aerated and topped with the same sand mix, and a 6-inch Multi-Flow drainage system was installed beneath the entire field before
Facility & Operations

final grading and re-sodding.

“We went with Lohmann’s group because they do this for a living,” says Pechette, noting that LSF boasts a client list that ranges from local high schools like his, to the Notre Dame Football Stadium (re-surfaced in 2008), to the creation of minor league baseball diamonds from Grand Rapids, MI to Peoria, IL.

“These guys are experts at the big work, but they pay attention to small details. There were no shortcuts; everything was done according to the engineering plans from Gewalt-Hamilton. Everything was so transparent, and I especially appreciated their paying attention to work-limit areas and not damaging any more than need be. Everything was cleaned up so well when they were done.”

You can see where this is going—actually, maybe you don’t. If that were the end of the story, it would be a simple (if not terribly uncommon) matter of an experienced sports field contractor cleaning up the mess left behind by a less experienced contractor.

But Lohmann Sports Fields is forging a relationship with Lakes Community HS that may be unique to sports field management at the scholastic level because it will continue beyond the initial project.

LSF, along with Gewalt-Hamilton and other consultants are now formulating an ongoing maintenance schedule at Lakes Community that allows Pechette and his crews to tackle items like aeration within the confines of a normal budget cycle.

“This isn’t the sort of thing that the big contractors normally get involved with,” said Jim Lohmann, senior project manager at LSF. “But we’ve spent a big chunk of the last 2 years talking to park district executives, high school athletic directors and recreation directors from across the Midwest. The market is changing. A lot of these guys are dealing with long-term budget reductions, meaning they are looking for new ways to more efficiently (and effectively) care for their sports fields.

“That sounds very general but it’s really quite specific. These school and park districts all have the same maintenance needs. We’ve identified 10 of the most common needs and formulated individual programs to address those needs, each for less than $10,000. This dollar figure is critical. Not all school and park districts operate identically, but the $10,000 price tag generally falls below the traditional threshold cost for projects that require a bid process.

“In other words, anything more expensive may require a bid, an RFP or months of planning, and a series of approvals from higher up in the bureaucracy.”

Tom Rychlik, a civil engineer with Gewalt-Hamilton, says that none of these advances in servicing park and school districts would be possible without an understanding of the public sector hierarchies and budgeting mechanisms.

“At most public agencies, budgets are not set up for capital improvements,” Rychlik says. “You need to add maintenance costs annually to properly care for a newly built or renovated field, to protect your investment. Park districts that have an agronomist on staff already know this, but if you do not—or you are a school district, which rarely have an agronomist on staff—then this sort of strategic outsourcing makes a lot of sense. It’s easier to budget and provides access to this expertise.”

At Lakes Community H.S., LSF would handle aeration on this out-sourced basis, if you will. As Lohmann noted, it’s a new high school and doesn’t have all the equipment on hand to efficiently prepare its fields, especially at the start and end of the season. The same holds true for established schools that are too small to invest in such expensive equipment.

“That’s where we see an opportunity to help,” says Lohmann. “We have the equipment, expertise and manpower to knock these jobs out quickly, on short notice. And the large volume of work that we do allows us to price the work just as efficiently, especially when schools in the same district contract together.

“Here’s another example of how this sort of out-sourced, ongoing maintenance can work: laser-grading,” Lohmann continues. “This is a big expense for park districts and schools. Every year when they’re getting baseball and softball fields ready for the spring season, they fill depressions and grade things off. Over time, the infield gets built up and is actually higher than the rest of the field, or the mix gets pushed to the perimeter leading to lip and drainage problems and a potential rebuild of that field, at some point. That’s expensive.
“We can laser grade quickly and easily each spring and save municipal clients the expense of adding materials year after year. Trust me: laser grading is a lot cheaper than buying a load of ball mix and laying it on there every spring, especially when annually adding mix ultimately leads to other problems that can easily be avoided.”

Rychlik noted that Gewalt-Hamilton are engineers, not agronomists nor soil scientists. Accordingly, they recommended to Pechette the services of Dave Marquardt at Dirt-n-Turf Consulting, Hinckley, IL which has developed its own ongoing relationship with Lakes Community HS.

“Dave takes soil samples and provides answers,” Rychlik says. “At Lakes Community, he found the water they use to irrigate had unsuitably high salt content. That means Leo’s annual plan should call for the laying down of gypsum to counteract the salinity.

“During the construction process, we use consultants like Dirt & Turf to determine what sort of fertilization program to use going forward, but there is no reason you cannot make those soil findings and judgments regarding an existing facility… I like to include $2500 for Dave to come out to a facility twice a year to report on soil strata, both chemistry and physical analysis. Again, no need for a bid and those reports tie in directly to the turf enhancement recommendations. I would say that if you have a good comprehensive maintenance plan that includes fertilization and overseeding, then the cost additions beyond Dave’s time to test and report are marginal, i.e. $1,000 a year. You’re just dialing in the specific rates that you can have confidence are right.”

Pechette has a newly renovated football field, but he’s also committed to the aeration regimen he’s undertaken with LSF. “We’ve already seen a reduction in the amount of turf we’ve had to put down [in repairs]. But the biggest thing is, the field today is a safe field, for the athletes. It used to be a quagmire with 3-4 inch ruts from the cleats. Now it gets wet, but never muddy.”

LSF calls its specific ongoing maintenance program “10 under 10”, because it details 10 vital projects that cities, park districts and school systems can undertake to add value and performance to their sports field inventory. Most important, each project can be executed for “under” $10,000.

“Don’t get me wrong: We have no problem doing rebuilds like the one we did at Lakes Community High School, but we’re honestly more interested in helping schools and park districts avoid that sort of major expense,” Lohmann said. “There are several things going on here. There are some park and school districts that simply don’t have the equipment or expertise to aerate or laser grade or install quick coupler valves on an irrigation system.

“But there’s another group of districts that might have the expertise but don’t have the budgets, or the political climate, that allow this sort of work to get approved. The 10 Under 10 program was designed to get this important work done economically.”

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