

Solutions by NETAFIM



GORC Park Sports Field *Installed with Netafim Subsurface System*

THE ISSUES BEING FACED

Visit sports parks throughout the United States and you are likely to see every field in play. This is definitely the case in Anne Arundel County, Maryland, where more than 100,000 kids in the suburban Baltimore and Annapolis area give constant use to sports fields for baseball, field hockey, football, lacrosse and soccer. The challenge became so great that the Anne Arundel County Parks Department knew they needed to add irrigation to relieve soil compaction and improve safety on the playing surfaces.

Prior to 1999, automated irrigation had only been installed on a limited number of county parks. One of the reasons was the "down time" required on the busy field for installation, seeding and cultivation of turf. But after obtaining positive results on several subsurface "test sites," Callahan decided to implement low volume systems countywide – and had the full cooperation of the sports teams, who had to rotate play on fields that were open. Soon, he and his staff were talking with Netafim USA, a major manufacturer of subsurface equipment, and Century Rain Aid, the nation's leading distributor of landscape irrigation products.

PROJECT OVERVIEW

The project came together with a partnership that included Jerry Schmidt of the Century Rain Aid Gaithersburg, MD branch; Mike Stoll, Netafim area sales manager; and Lou Rudinski, sports turf superintendent of Anne Arundel County Parks. They worked as a team on a Century-designed irrigation plan for GORC Park, a multi-use field.

THE NETAFIM SOLUTION

"After a thorough analysis of the soil and site, Century designed a low volume system that matched the clay soil at GORC Park," said Schmidt. "We specified 14 irrigation zones using Netafim Techline Dripperline with inline emitters spaced every 18 inches, an output of 0.6 gallons per hour per emitter and a spacing of 18 inches between rows.

Less Liability, More Safety

"We chose subsurface irrigation for a number of important reasons," said Callahan. "From a safety standpoint, you don't have the problems associated with sprinklers – tripping over heads, puddling or soggy areas. Secondly, a subsurface system conserves water because irrigation is immediately available to the rootzone and isn't wasted through evaporation, wind or overspray."

Sports Field Summary

Designer

Complete Industries, Gaithersburg, Maryland

Irrigation Equipment Supplier

John Deere Landscapes, Gaithersburg, Maryland

Installing Contractor

John Deere Landscapes, Gaithersburg, Maryland

Issues to Address

- Improve safety on the playing surface of sports fields in the suburban Baltimore and Annapolis areas – daily for baseball, field hockey, lacrosse and soccer
- Provide more hours of daily use
- Address the small water supply of 15 GPM
- Relieve soil compaction

Netafim Products Used

Netafim Techline Pressure Compensating Dripperline

- 0.6 GPH Flow Rate Drippers
- Drippers at 18" interval in tubing
- Row spacing 18"
- Subsurface Installation with 6" depth of burial
- Netafim Filters
- Netafim Pressure Regulating Valves

Results

- Irrigation can be turned on before practice, softening the soil and minimizing player impact and injury.
- Safety hazards associated with sprinklers - tripping over heads, puddling or soggy areas are eliminated.
- 50% water savings (compared to overhead sprinklers) is important for GORC Park since its water comes from low-yield wells.
- Irrigation is immediately available to the rootzone and isn't wasted through evaporation, wind or overspray.
- Fields can be irrigated during periods of drought and stay within the state water conservation guidelines.
- Fields can be irrigated while they are in use.

Only 10 Hours to Install Netafim Drinkerline

"The entire process from Techline installation to start up of the system took only three days last spring," said Stoll. "Using our Techline Tubing Insertion Plows (TLTIP), the contractor and his crew laid all the Techline tubing over the course of 10 hours."

Anne Arundel County is very pleased with the new system. "The Netafim Techline irrigates the field at an ideal 6-inch depth," said Rudinski. "It's healthier for the turf and the grass grows with deeper roots. Because the field is not muddy or soggy from sprinklers, they are always dry and ready for play – a major benefit because the sites are very busy every day."

Techline Drinkerlines Many Features Deliver Many Benefits

Rudinski has also been impressed with the pressure compensating, continuous self-cleaning drinkerline and 140-mesh filtration features of the Techline system. "The pressure-compensating component means each emitter puts out the same amount of water on the field, allowing for uniform coverage," he said.

Water Conservation

"Water conservation is an added bonus of the Netafim system – important for GORC Park since its water comes from low-yield wells," said Schmidt. "We expect to use 50 percent less water than overhead sprinklers."

The community benefits are important, too," added Rudinski. "With a subsurface system, we can irrigate the fields during periods of drought, yet still stay within the state water conservation guidelines. Because water 'seeps' into the root zone without any disruption to the playing surface, we can actually irrigate the fields while they are in use."

For the 100,000 pairs of youthful feet on the sports fields, cushioned turf offers some welcome relief. "Subsurface low volume irrigation continues to be a great solution for the compacted soils at GORC Park," said Schmidt. "Irrigation can be turned on before practice, softening the soil and minimizing player impact and injury."

Anne Arundel County is planning to continue to work with Century Rain Aid on the installation of a series of subsurface systems at additional fields – many with low producing wells as their water source. "We scored a total home run with the installation of a Netafim subsurface irrigation system. The newly irrigated fields are safer and the improved aesthetics are a source of pride to everyone in the community, especially our turf management team," said Callahan.



Techline Tubing Insertion Plows were used to install the entire subsurface system in less than 10 hours.



"Techline was delivered to the job site in 1,000' coils that mounted directly onto the TLTIP insertion plow, allowing for all the drinkerline to be installed in one day."



"Techline with emitters every 18" was installed at a spacing of 18" between rows and a depth of 6". The low yield wells, which were unable to supply enough water for an overhead rotor system provided plenty of water for Techline subsurface drinkerline."



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