

Colony West Country Club Tamarac, FL

IRRIGATION DESIGN TEAM

Director of Golf Maintenance
Dale Kuehner

Contractor

Stahlman-England Irrigation, Inc.

Installation Date

May 2008

PROJECT GOALS

- Upgrade hydraulic control system, eliminating multiple sprinklers per station
- Optimize irrigation efficiency across 140 acres
- Simplify maintenance and troubleshooting of irrigation system

RESULTS

- Single head control with improved irrigation uniformity
- More efficient watering and better control
- Built-in diagnostics making field issues easy to identify and resolve



For the first time, control technology is integrated right into the rotor.



The IC™ System is a less complex system with superior reliability and easier maintenance.

New IC™ System makes irrigation easier, more reliable for Florida golf course

Upgrading old hydraulic system to new electric single head control improves water management and simplifies troubleshooting

Project Overview

The Colony West Country Club, a par 71 course spread over 7,312 yards, has been rated one of the top 75 public courses in the United States by Golf Digest magazine. The staff at this popular course found themselves struggling with an old hydraulic satellite irrigation system covering 140 acres. Many stations had multiple sprinklers operating together, and the system needed an upgrade to improve the accuracy and efficiency of its water management. The hydraulics were slow, often malfunctioned, and were difficult to troubleshoot. The staff wasted many hours tracking down and solving irrigation issues, and the maintenance team often encountered problems with the 110V power supply to the field satellites.

Project Challenges

Colony West was looking for an easier system that would simplify maintenance and troubleshooting. The club wanted more flexibility and better performance.

The team at Colony West turned to Rain Bird, choosing the IC System. "The old hydraulic system made it very difficult to pinpoint problems," said Dale Kuehner, director of golf maintenance. "We needed something simple and powerful that gave us the flexibility to apply water when and where we needed it."

Solutions

In May 2008, Colony West installed the Rain Bird IC System on all 18 holes. They replaced existing sprinklers with new Rain Bird EAGLE™ rotors featuring



The beauty of a Rain Bird IC System is that the entire system is connected by a simple MAXI Wire path.



Unlike satellite systems, this revolutionary control system installs underground, protected and out of sight. The Rain Bird IC System offers easier installation because the system requires less wire than a controller system and fewer splices than a decoder system.

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Integrated Control Modules (ICMs). Stahlman-England was contracted to pull in a MAXI™ cable wire path to each new sprinkler, eliminating the old satellites and hydraulic control system.

The Rain Bird EAGLE IC rotors provided Colony West with single head control, which allowed greatly improved irrigation uniformity. Connected to Rain Bird central control software, the IC System is an intelligent control platform that links the rotors directly to the central control. For the first time, Integrated Control Technology™ is built right into the rotor, eliminating the need for field controllers, decoders, or secondary wiring. Using significantly less wire and even fewer splices than a central/satellite system, Integrated Control Technology simplifies maintenance and makes troubleshooting easy by communicating directly to the central control. "The IC System gave us two-way communication and single head control. It was simple to install—as easy as replacing old heads or retrofitting Rain Bird EAGLE rotors and pulling one wire," said Kuehner. "I don't think there is anything comparable. The system has plenty of room to grow. All we have to do to make additions in the future is tap into the wire and add new heads."

The IC System is a true low voltage (under 30V) system, which was a relief to Kuehner and his staff. "Now we don't have any more worries about high voltage 110V power," he said. "The Rain Bird MAXI Cable wire is much easier to deal with. Just plug it in and you're done with it."

As the needs of the course grow and change, the IC System can easily be upgraded or expanded. The simplicity also means greater reliability. With fewer parts and less wire, the IC System offers consistent, reliable performance, year after year. "This system is so much easier," said Kuehner. "It's just one cable—it doesn't get much simpler than that."

Advanced Technology to Manage Surge and Lightning

Located in Southeast Florida, Colony West is in the heart of the Florida lightning storm zone. After installing the IC System in 2008, Colony West experienced a huge lightning storm in the spring of 2009, the worst Kuehner had seen in his 20 plus years at the course.

After the storm, Kuehner expected the worst. Two trees very close to the irrigation wire path had taken direct hits. With the old system, this would have been meant hours of troubleshooting. Using the IC System's central control software, Kuehner ran the diagnostics and was pleased to find that only six ICMs had been damaged. The advanced diagnostics quickly pinpointed the damaged units. The rest of the irrigation system was unaffected, and maintenance staff quickly changed the units at minimal cost.

The advanced surge suppression technology of the IC system offers multiple stages of surge protection within each IC module, including fast-acting varistors. The ICSD surge devices supplement the surge protection of the system, and are designed to divert high-energy surges safely to the ground.

Summary

The system upgrade gave Colony West much-improved irrigation coverage and dramatically reduced the time they spent troubleshooting and performing maintenance. The easy-to-operate, two-way communication inherent in the system enables maintenance personnel to troubleshoot almost all field issues through intuitive diagnostics built right into the central control software. The Rain Bird IC System allowed Colony West to enjoy improved water management, better reliability, and less maintenance.