

CASTA DEL SOL HOMEOWNERS ASSOCIATION

MISSION VIEJO, CALIFORNIA

OVERVIEW

Casta del Sol Homeowners Association in Mission Viejo, California is a gated, residential community of approximately 2,000 homes and 263 acres of green space across a very hilly terrain. Along with home sites, the neighborhood includes numerous common areas, hundreds of open areas and street medians, a vegetable garden, a Heritage Garden of native California plants, and a world-class lawn bowling site.

With the help of 97 irrigation controllers, the association manages 4,465 valves irrigating a sprawling complex of residential and common areas, featuring turf grass, shrubs, flowers and trees. The site is managed by a dedicated irrigation staff of 6 and a landscaping crew of about 60.

CHALLENGE

To replace an aging satellite system that was becoming outdated due to: radio communication issues, including obsolescence and lack of intelligent feedback; lack of extensive programming capabilities; and the controller enclosures were rusting and required extensive upkeep.

In addition, the association wanted to utilize environmental sensors to manage the 2 distinct microclimates within the community; to utilize flow meters to monitor and react to leaks and excessive flow; to save time and improve the safety of the irrigation crew; to save water and most importantly, to save money.

SOLUTION

Signature recommended the association install:

- CONSTELLATION[®] field controllers with patented peer-to-peer technology
- License-free, digital radios for communications
- Two sets of tipping rain buckets and ET gauges at 2 individual locations
- Flow meters connected directly to the field controllers
- Handheld maintenance radios
- eCONSTELLATION[™] online central system



Casta del Sol Homeowners Association - Mission Viejo, California

RESULTS

Cost Savings

With CONSTELLATION field controllers' 196 zone capacity, the association was able to reduce the amount of field controllers to 97 from 159; that's 62 fewer controllers - almost a 40% reduction! That means less service points and less labor.

Additional Cost Savings

Fewer irrigation controllers allowed Casta del Sol to eliminate approximately 30 electrical power boxes that delivered power to the irrigation satellites, saving about \$450 per month or \$5,400.00 per year for years to come.

Increased Safety

With CONSTELLATION field controllers' high capacity, the association was able to eliminate 8 irrigation satellites on the perimeter of the property outside the gated community and adjacent to busy streets. This reduced the safety hazard of the irrigation staff working along busy roads and eliminated any potential for vandalism.

Less Maintenance

With the installation of the new plastic enclosures, the requirement for painting and maintenance has been eliminated.

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Environmental Sensors: Water and Labor Savings

The CONSTELLATION field controllers automatically adjust run times on the associations 4,465 valves, automatically, without any human input. This saves water, labor, improves plant health and eliminates water runoff.

Microclimate Adjustments

The tipping rain buckets and ET gauges automatically adjust the associations' water times across 2 varying microclimates, saving the time and expense of manually adjusting the schedules seasonally or in the event of rain.



In foreground, ET gauge (left) and tipping rain bucket (right) at Casta del Sol Homeowners Association - Mission Viejo, California

Expansion Potential

The high capacity CONSTELLATION irrigation controllers allow for any expansion or modifications the association may undertake in the future.

License Free Radio

With license-free, digital radio communications, Casta del Sol was able to bypass any federal licensing and future usage restrictions, saving multiple licensing permits and future obsolescence.

Reliable Radio Coverage

The unique, patented, peer-to-peer communications network by Signature allowed coverage of the challenging site with the most efficient use of radio equipment.

Water Savings

Flow meters constantly monitor the flow in each zone and alert the irrigation crew to any pipe breaks or broken sprinklers. The CONSTELLATION field controllers will automatically shut down zones with excessive flow.

Ease of Use

With each of the 5 irrigation foremen having handheld maintenance radios, it makes maintenance much more efficient as they can be in the field initiating commands, instead of walking back and forth to the field controller.

Do Anything ... From Anywhere™

The eCONSTELLATION online central control system allows control over the water schedules and programming from the office, home, or anywhere in the world where there is access to the internet.

Significant Savings

Ultimately, the association's water costs are significantly lower, saving literally thousands of dollars, and helping to create budget surpluses.

LANDSCAPE MANAGEMENT

Richard Ruiz - CEO, Pac West Landcare
Reyes Gomez - Irrigation Manager, Pac West

COMPLETION DATE

July 2004

SIGNATURE PRODUCTS

- eCONSTELLATION™ Online Central
- CONSTELLATION® Field Controllers
- License-free, Digital Radio Communications
- ET Gauges
- Tipping Rain Buckets
- Flow Meters
- Handheld Maintenance Radios

“The Constellation system has been a fantastic advantage for us ... it automatically adjusts 4,500 zones based on ET and rainfall. It takes all the guesswork out of irrigating.”

– Richard Ruiz, Pac West Landcare

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