

LARAMIE COUNTY SCHOOL DISTRICT #1 CHEYENNE, WYOMING

OVERVIEW

Laramie County School District #1 in Cheyenne, Wyoming consists of 45 schools across the district, including elementary, junior and senior high schools. In addition to the schools, there are numerous ball fields, playgrounds and open areas.

CHALLENGE

Laramie County School District is experiencing tremendous growth, with the addition of new schools opening every year over the next few years. They were looking for an irrigation system that could be integrated immediately into 10-12 existing schools, could be seamlessly integrated into the new construction and could be gradually retrofitted on the older sites, without any loss of sensor or functional capability.

SOLUTION

Signature recommended the school district install:

- eCONSTELLATION™ online central system
- CONSTELLATION® field controllers with patented peer-to-peer technology
- License-free, digital radio communications
- Flow meters connected directly to the field controllers
- Handheld maintenance radios

RESULTS

Robust and Reliable Radio Communications

The patented peer-to-peer communications network by Signature allowed coverage of the entire school district with the most efficient use of radio equipment.

Time and Labor Savings

With CONSTELLATION field controllers' peer-to-peer communications network, irrigation technicians can control, program, or adjust any program or field controller from any other controller across the school district. No more driving back to the central or to the actual controller - saving time and money.



Laramie County School District #1 – Cheyenne, Wyoming

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 controllers.

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.

Scalability

The unique protocol of the CONSTELLATION network allowed the school district to scale-up gradually and use the on-board intelligence from day one without any loss of capability.

For instance, they installed 12 sites the first year, additional sites in the years that followed, and more sites come on line each year as construction progresses. Integration is seamless; the ability to use ET downloads or check for leaks and shut down is available from day one.

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Daily ET Download: Water and Labor Savings

With eCONSTELLATION’s daily ET download, the field controllers across all 45 sites automatically adjust run times automatically, without any human input. This saves water, labor, improves plant health, and eliminates water runoff.

Daily ET Download: All Season Playability

In addition to the above advantages, eCONSTELLATION’s daily ET download keeps the fields from being over watered or under watered so they remain playable throughout the ever-changing Wyoming seasons.



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Monitoring and Eliminating Excessive Flow

By connecting the flow meters and master valves directly to the CONSTELLATION field controllers, the controllers constantly monitor, test, and eliminate excessive flow. The intelligence can find and eliminate a broken head or a broken main.

Real Life, Real Savings

Says John Boyd, Irrigation Technician, “The ability to monitor and shutdown a zone or a main, was one of the most important considerations for using Constellation. In the past, a broken main could potentially run for 8 to 12 hours before it was noticed. With the Constellation system, it shuts down the zone or master valve, as required, sends me an alarm, and in the morning I know exactly what happened over the night or weekend.”

Boyd continues, “Using eConstellation and the daily ET download, we have saved over **500,000 gallons** of water and that was just one school. Then combine that with the master valve shutdown capability, and that’s impressive!”

CUSTOMERS

- Edmund Restivo, Integrated Trade Supervisor
- John Boyd, Irrigation Technician
- Scott Burge, Irrigation Technician

PROJECT DATES

March 2005 to present (ongoing construction)

SIGNATURE PRODUCTS

- eCONSTELLATION® Online Central
- CONSTELLATION® Field Controllers
- License-free, Digital Radio Communications
- Handheld Maintenance Radios

SIGNATURE DISTRIBUTOR

- DBC Irrigation Supply

“Using eConstellation with the daily ET download, we have saved over 500,000 gallons of water ... and that was at just one school.”

– John Boyd, Irrigation Technician