

Bethke Elementary School

Timnath, CO

Project Purpose

- To provide irrigation system engineering for a state-of-the-art elementary school located at the center of a new housing development.
- Philosophy is to conserve water and utilize alternative water sources as effectively as possible.
- Intent is to achieve highest LEED® certification possible for the project.



Role of Irrigation Consultant

The irrigation consultant provided:

- high-efficiency irrigation-system design for turfgrasses, perennial beds, and plant materials.
- booster pumping system design to be utilized for temporary potable source prior to nonpotable well-water delivery.
- use of a central control system with an integrated weather station for automatic response to daily ET rates.
- documentation of LEED-approved water-saving techniques used for the irrigation design.

Special Factors

- Computer modeling was used to achieve the most efficient sprinkler nozzle, pressure, and spacing combination.
- Booster pump requirements.
- Control and management strategies to contribute significantly to overall irrigation efficiency.

Significance

- First project in Colorado for which the irrigation consultant was successful in pursuing and receiving both LEED® Water Efficiency credits.
- First school in Timnath to utilize nonpotable water public area irrigation.
- First school in the nation to receive certification under the LEED® for Schools rating system.

