

SOLUTIONS BY



PINNACLE BANK CORPORATE HEADQUARTERS

CORPORATE CAMPUS SHOWCASES COMMITMENT TO SUSTAINABILITY

AND EARNS LEED POINTS WITH NETAFIM IRRIGATION PRODUCTS

PROJECT OVERVIEW

Pinnacle Bank's objective was to build a LEED certified corporate headquarters that reflected the company's commitment to sustainability while simultaneously representing their dedication to the community and growth of Omaha.

"From our high efficiency heating and cooling system to our water efficient irrigation system, the building represents our commitment to supporting our environment for years to come," said Sid Dinsdale, Chairman of Pinnacle Bancorp.

The project sought to enhance the community through education, utilize strengths of the industry's highest rated designers and developers, and to promote collaboration between private and public sectors. The new structure and landscape models a professional team's collaborative endeavor to create a beautiful, efficient, and 'green' corporate headquarters that portrays the value of enlightened stewardship.

LANDSCAPE OVERVIEW

The primary directive was to provide a planting aesthetic that differed from other corporate campuses in Omaha. The plant palate utilized regionally native and adaptive plant materials. The design consisted of vegetation that can readily sustain the Eastern Nebraska environmental conditions with little supplemental irrigation, fertilization, or other attentive care. Due to the plant's ability to thrive in Omaha conditions, their water requirements are low. The turf grass design combines the best cultivars of fescue grasses, which also require less water than customarily used for blue grass or buffalo grass. The landscape and irrigation design drastically reduce water consumption and are in compliance with LEED standards.

PINNACLE BANK PROJECT STATS

LOCATION

Omaha, Nebraska

IRRIGATION DESIGNER

Ken Merboth, CID, CLIA, LEED AP, Water Scape Inc.

LANDSCAPE ARCHITECT

Thomas Bentley, Dropseed Studio, the design branch of Kinghorn Gardens

LEAD CONTRACTOR

Chuck Biffar, President, Turf Builders Irrigation, Inc.

ISSUES TO ADDRESS

- Irrigation system that avoided water damage to vehicles, building structure, and windows
- High wind conditions
- Site elevation
- Green roof that reflected heat and reduced energy consumption
- Landscape needed to differ from other corporate campuses in Omaha while maintaining aesthetic appeal

NETAFIM PRODUCTS USED

- Techline® CV Dripline with 0.26 GPH emitter flow rate
- 18" emitter spacing
- Netafim Control Zone Kits; Low Flow and High Flow
- Subsurface installation at 6" depth

CHALLENGES

The design called for extensive landscape that included grass, plants, and a green roof. In order to meet LEED specifications, water consumption needed to be reduced by 50%.

Due to the site's elevation and high wind conditions, the design of the irrigation system would require special consideration to avoid water damage to windows, the building structure, and cars while maintaining a beautiful and healthy landscape. Increased future savings in water, labor, landscape chemicals, and plant replacement depended on the ability to justify additional up-front installation and material costs.



GREEN ROOF

The green roof was created by placing together 3' x 3' sedum containers which are irrigated using small rotors. Green roof designs include water proofing, a root repellent system, a drainage system, a filter cloth, and light-weight to medium-sized plants with root systems no deeper than four inches.

Green roofs help reduce the amount of energy needed to maintain the buildings temperature. Roofs are the sight of the greatest heat loss in the winter and the hottest temperatures in the summer. Green roofs further contribute by prolonging the service life of heating, ventilation, and HVAC systems through decreased use.



The 'green roof' is an extension of the existing roof which grows light-weight plants and contributes to the buildings lower energy consumption.



RESULTS

The irrigation system was designed using the best management practices as stated by the Irrigation Association and put into use the highest efficiency water conservation irrigation equipment. Netafim's Techline® CV was specifically chosen for its ability to maintain soil moisture levels more efficiently in Omaha's dry climate. Techline CV dripline also proved flexible and adaptable to the round and narrow landscape design. The total actual reduction of water used for turf and landscape submitted to LEED was 71.54%.

- An in-line subsurface drip system irrigates all planting beds and turf areas around the bank, next to the street, and next to the entrance.
- Dripline includes built-in check valves that prevent line drainage at completion of each cycle, saving additional water and preventing uniform wetting patterns throughout the irrigated area.
- Low Volume Control Zone Kits provide a wide range of flow rates to accommodate the various landscape needs. Pre-assembled kits include valve, filter, and pressure regulator and reduce installation and labor costs.

SUPPORT

Ken Merboth has designed using Netafim products for over 13 years. "I like the wide range of GPH options they offer and have developed a great trust in the reliability of Netafim [Techline] CV Dripline."

Lead contractor for the project, Chuck Biffar, has provided several designs for major shopping centers that all use Netafim products extensively in planting beds and turf areas.



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