

EFFICIENCY & SUSTAINABILITY

For vibrant places like Holland, energy efficiency is a quest that links our residents, the business sector and our municipality in shared goals and opportunities.

To demonstrate the energy and cost savings potential of LED lighting, in December 2012 the Holland Board of Public Works (HBPW) and the City of Holland partnered to install an intelligent Light Emitting Diode (LED) system in Centennial Park.

The design of the new lights, installed on existing poles, provides an appearance in keeping with the Victorian aesthetic of this historic park in the heart of Holland.

By using this city-owned park as a “lighting laboratory” to track and showcase the advantages of LED technologies in real conditions, this joint project hopes to inspire increased use of LED lighting as a pathway to sustainable energy and cost savings.

WHY AN INTELLIGENT LED SYSTEM?

- LEDs use up to 70 percent less energy
- 100 percent control and customization of each fixture, with a wireless system that programs the levels of light
- 500 percent longer lasting
- 99.9 percent less maintenance
- 0 percent mercury and other hazardous materials

SEE FOR YOURSELF

To see the LED lights in action, visit Centennial Park any evening.



LEDs are mounted inside of a trim ring, which doubles as a heat sink for optimal heat dissipation and long life.

A wireless system means the LEDs in the park can be programmed from anywhere using just a few keystrokes.

For more information about the Centennial Park LED project and its savings metrics, contact Andy Kenyon at the City, 616.928.2457 or Anne Saliers at the HBPW, 616.355.1658.

Jointly sponsored
by the Holland
Board of Public
Works and the City
of Holland.



CENTENNIAL PARK

LED Demonstration
Project

21ST CENTURY SAVINGS FOR A 19TH CENTURY PARK



Downward illumination of LEDs throughout the park means improved visibility with 50-70% reduced energy use.

HISTORY OF CENTENNIAL PARK

INVESTING FOR THE FUTURE

LED fixtures were installed on existing poles, and the design blends with the Victorian aesthetic of the park.



Centennial Park was originally Holland’s village market area. In 1876 it was developed and dedicated as a city park, one of Michigan’s first. Located between 10th and 12th Street and River and Central Avenues, today this 5.6-acre landmark is enjoyed as a destination for events as well as a pleasant strolling area.

A veteran’s memorial, a Michigan historical marker honoring Dutch settlers in Michigan and a statue of Holland founder Albertus van Raalte are located here, alongside flowerbeds, walkways and many mature shade trees.

A state-of-the-art system of 48 dimmable LED lights replaced aging 175-watt metal halide lights along the pedestrian pathways in Holland’s downtown Centennial Park.

Lumecon solid-state *Ring of Fire* 60-watt LEDs, which distribute light downward in a round pattern, were installed on existing lampposts throughout the park. The *Ring of Fire* product is made in Michigan by Relume and marketed through Lumecon, based in Farmington Hills.

Instead of producing light by passing an electric arc through gasses, LEDs use electrons in a chip to do the job much more efficiently.

The LED lights in Centennial Park are wirelessly networked in a robust and secure system that provides control and customization for how the lights are used. The software includes:

- A user-friendly calendaring function to program on/off times
- Dimming options to automatically adjust the light levels of each fixture, individually or as groups, for varying conditions and to maximize energy savings without compromising safety
- A built-in analytics function that provides real-time data for monitoring, troubleshooting and reporting

\$2,800 in annual energy cost savings are projected.

PARK MILESTONES

- 1902** 20-foot rock fountain installed
- 1904** Underground restrooms added
- 1907** Bandstand built atop restrooms
- 1988** Walkways paved via a citizens’ “Buy A Brick” Campaign
- 1991** Holland Area Home Builder’s Association contributed a gazebo and the City of Holland installed metal halide lighting
- 2012** LED lights installed on existing poles through a project jointly sponsored by the HBPW and the City of Holland

Joint funding for the \$35,000 projects came from:

- The HBPW Energy Optimization fund collected in accordance with Michigan Public Act 295
- The City of Holland Capital Improvement Fund

To quantify the return on investment, HBPW and the City of Holland are monitoring energy use and overall performance.

The Centennial Park LEDs...

- Improve safety with better lighting
- Limit the night sky pollution
- Have a backup photocell for automatic on/off if program signal fails
- Manage emergencies with a flashing feature
- Reduce Holland’s carbon footprint
- Track performance with system analytics