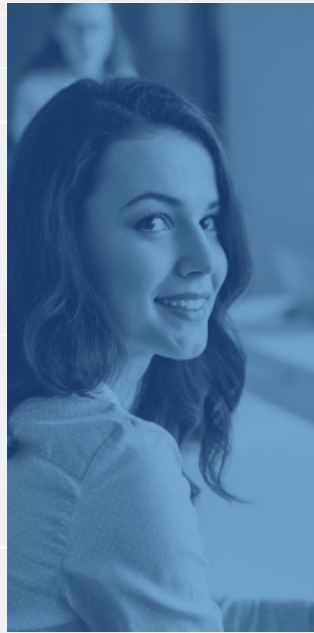


# San Jose City Hall

## Case Study



**High-performance building reaches new heights with Enlighted Lighting Control.**

### Overview

There is an obvious match between the Enlighted sensing and control solution and the challenge of upgrading the vast majority of buildings that have not been designed for energy efficiency. For retrofitting existing buildings, the concept of bolt-on smart sensors and a wireless data back-end makes clear sense. But, what about brand new structures built for high-energy performance? Can their comfort be improved and energy spend reduced through intelligent dimming, occupancy control and daylight harvesting?

The City of San Jose installed Enlighted across one floor of its recently completed LEED Platinum City Hall building to measure the gains it might achieve. It found the retrofit reduced the amount spent on lighting for the space by 53 percent, while also improving the employee comfort through personalized light settings.

### Municipal Platinum

San Jose City Hall was the country's first city hall to obtain United States Green Building Council (USGBC) Platinum certification for existing buildings in March 2009, the highest possible Leadership in Energy and Environmental Design (LEED) rating. The savings achieved through Enlighted's technology, however, came after LEED certification, demonstrating that there is always more opportunity to tune a building and gain more savings, comfort, and operational efficiency.

"We already had an aggressive lighting program in place, starting with a sophisticated daylighting design. Yet, with Enlighted, we found that there were still savings to wring out of this building," said Matt Morley, Deputy Director of Public Works, Fleet and Facilities. "Key for me was being able to address the lighting at the fixture level. With Enlighted, I can easily cater to individual needs,

yet maintain command control over lighting energy usage. I enjoy the challenges of creating comfortable and productive work environments for my colleagues while ensuring that the core infrastructure is reliable, functioning optimally, and saving us money – every second of every day.”

“I’m sensitive to too much inside lighting. I get headaches,” said one city worker. “I was wearing green eyeshade visors at work before we got the Enlighted

system. I had asked our maintenance team to just take the lamps out of my fixtures, and I wanted to bring in my own task lighting. I understand how that might have undermined our building’s overall energy savings goals. Now, my overhead lamps are dimmed to my preferences, and others can have the light levels they want, too. I leave my visors and desk lights at home!”



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**MATT MORLEY**

Deputy Director of Public Works, Fleet and Facilities  
City of San Jose, California

**At a glance**

**Building type**

Office retrofit

**Location**

San Jose, California

**Fixtures**

118 T8 fluorescent fixtures

**Project scope**

**Control system**

- 118 Smart Sensors
- 2 Gateways
- 1 Energy Manager

**Commissioning date**

October 2012

**Project results**

**Monthly energy savings**

50 to 53 percent

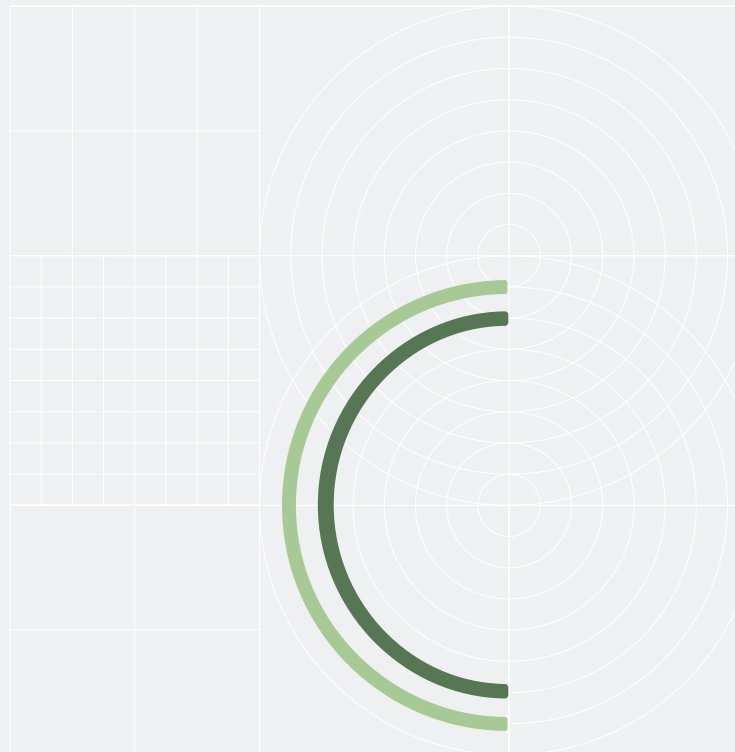
## Energy performance results

With one sensor per fixture, the Enlighted system offers the granularity and flexibility to dim, brighten, and turn lights on or off, according to the space that is being used. The sensors are controlled by software profiles that instruct fixtures to light hallways, private and open offices, and common work areas with just the right amount of light, only when it is needed. These profiles are easily changed and updated from a central web-based console.

The City's facilities team dimmed down lighting to 40 percent maximum light level for the office space covered by Enlighted system. With few exceptions, occupants did not notice or they asked for further dimming. Lighting comfort is a personal preference, but for most people doing screen-based tasks, tuning down overhead lights not only saves energy, it is more comfortable. The system also actively detects worker presence and

ambient conditions, making intelligent decisions about lighting based on these factors in real-time, adding significant occupancy and daylight-harvesting savings to the total. By internal measures, the Enlighted system at San Jose City Hall has realized impressive lighting energy savings results in the range of 50 to 53 percent over three months.

“As a world center of clean tech innovation, the City of San Jose is an ideal partner for companies bringing next-generation, energy-conserving technology to market,” said Tushar Dave, Chairman and CEO of Enlighted. “The efficiencies we’ve achieved in this already high-performance city hall building serve as a leading example for other municipalities across the country that have similar energy conservation goals for their building stock, their cities, and their people.”



“

Investing in energy efficiency measures can produce significant long-term savings. Embracing lighting control systems and other energy management technologies can also help San Jose achieve its Green Vision goals to reduce per capita energy use by 50 percent.

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**CHUCK REED**

Mayor  
San Jose, California

## About Enlighted

Enlighted provides people-smart energy efficiency solutions for commercial environments. Its first application – advanced lighting control, built on the Enlighted sensor and analytics platform – saves companies between 50 and 70 percent in energy costs while tuning individual workspaces for the comfort and efficiency of the people who work in them. Additional applications ranging from occupancy and real estate analysis, to HVAC controls, to security services are based on additional data that can be observed and aggregated on the Cloud.



Building Robotics, Inc.,  
a **Siemens Company**

### Turn Everyday Spaces into Extraordinary Places

Wherever space, people and work meet, Enlighted empowers organizations with the technology to transform real estate spaces into regenerative places that fuel positive impact for people, portfolio, and our planet.

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