

# Case Study

## The Background

**Community College Bishops Castle are a proud and successful 11-16 school in South Shropshire, covering a wide geographical area with students from more than twenty primary schools, including Wales.**

As an integral part of the community the college is an exciting and stimulating place of learning who seek to instil positive attitudes and a sense of purpose in their students whilst also developing social awareness within the community.

Developing their understanding of the wider world is key to the learning environment, creativity, adventure, and innovative ideas are always encouraged.

With multiple buildings hosting 400+ students and teachers, the upkeep and management of the emergency lighting system at the college is paramount to safety of its users along with an efficient infrastructure so that money is not wasted.

## The Challenge

The college is part of Shropshire County Council's network of education establishments, and The Property Services Group (PSG) Shropshire are responsible for the running, maintenance, upgrades, and repairs to the buildings incorporated in the grounds.

The emergency lighting system required replacement to ensure that the building was compliant as the incumbent products were failing and were becoming expensive and difficult to manage. Clevertronics were invited to submit a scheme that would completely update the estate with a sophisticated yet easy to use system that needed little maintenance and provides a long lifetime. This had to be delivered within a very tight timeframe. The lifetime of the solution was a particular requirement, especially from a maintenance perspective and during the replacement of the emergency lighting system, the PSG group had to minimise disruptions to the students and teachers.

### Project Name

Community College  
Bishops Castle

### Location

Shropshire, West Midlands,  
United Kingdom

### Industry Application

Education

### Project Type

Existing Emergency Lighting  
Upgrade

### Year

2021

### Contractor

Shropshire County Council, PSG  
Shropshire, DR. E. Contractors  
Ltd, Rexel Shrewsbury

### Product Range

L10 Lithium Nanophosphate

### Testing System

Zoneworks XT HIVE

“

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# The Solution

After surveying the site, it was clear to meet the challenges posed by the college, L10 Lithium Nanophosphate products were needed. L10 provides a 12+ year design life –the highest performing battery lifetime in the industry and delivers a 90% + carbon reduction over products using NiCd and NiMH batteries. Working closely with all project partners, we produced various system options and designs ensuring that any chosen solution would comply with all the relevant Emergency Lighting Regulations including BS5266-1.

Our design provided for a combination of Clevertronics LED emergency and exit luminaires, HIVE wireless testing technology and best the performing lithium batteries to achieve the desired results (see 'Installed System' to the right.). Using Clevertronics fittings means that the customer receives the best performing emergency fittings on the market enabling better light output when it's needed enabling increased spacing, which in turn means less fittings are needed to meet the requirements. Also, to minimise disruption the design allowed for sufficient lighting to cover all egress areas.

To reduce the ongoing cost of the overall installation, and for ease of compliance reporting, Zoneworks XT HIVE was selected from our system suite. The benefits of using Zoneworks HIVE are great, with minimal hardware needed for installation because of the wireless mesh technology. HIVE also can commission, monitor, test and provide reports either remotely or on site—all highly desirable features for reducing cost and achieving greater compliance.

# The Result

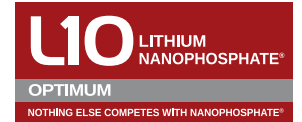
In conclusion, this multisite estate now has 380 Clevertronics emergency and exit fittings that are all connected via one controller. It is this combination of L10 products and the HIVE testing system which enables Clevertronics to offer our Advantage Lifetime Support (ALS). ALS provides the owner of the site with Clevertronics support and advice, at no cost to the facility owner, for the lifetime of the system.

“We used Clevertronics because they provided a guaranteed networked system using the latest battery technology. This means that we will save maintenance costs as we don't have to have the system inspected to maintain compliance at the school, thereby reducing the overall lifecycle costs for the project.”

Pete Brown BEng Hons I. Eng MIET Electrical Engineer Property Services Group (PSG)

# Find Out More

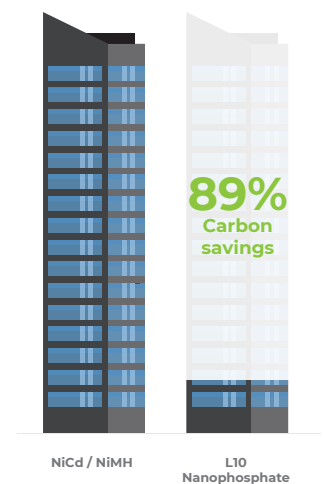
**Community College Bishops Castle is another quality project delivered by Clevertronics. If you would like further information about this case study or are interested in understanding more about Emergency and Exit lighting within your building, contact Clevertronics for a site audit, demonstration, and cost analysis report.**



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## Sustainability: Carbon Impact

**L10 Nanophosphate and Zoneworks XT HIVE can reduce carbon emissions by up to 89%**



\* Findings based on recent AECOM carbon study on the use of emergency lighting products in buildings.