Gallagher Shopping Park

Case Study:

Taking charge of power distribution for Gallagher Shopping Park

Project Summary

Project name: Taking charge of power distribution for Gallagher Shopping Park Park

Location: Wednesbury, UK

Completed: 2018

Products used: Bespoke Lucy Zodion pre-wired pillar with SS55 photocell

Contractor: Eco-1 Electrical Solutions

Background:

Gallagher Shopping Park is a large retail park located on the M6 motorway, Junction 9, in Wednesbury. Populated with retail stores, specialising in a wide range of products from homeware and furniture to fashion and electricals, it is a popular amenity used by both the local community and passing trade, alike.

The Park is home to 23 different stores and has recently been updated with restaurants, as well as an extended retail offering to increase dwell times and enhance the overall shopping experience. There are now over 1,000 parking spaces; with the site itself seeing over 50 million cars pass each year – a huge potential and capacity for passing trade.

Challenge:

As part of the recent addition of leading UK brands and more places to eat and drink, the park had a requirement to provide EV charging and better parking facilities to attract and accommodate more visitors. Eco-1 Electrical Solutions therefore needed to find a solution that supplied enough power for constant EV charging facilities, as well as carpark lighting infrastructure, while blending in to the surrounding landscape of modern retail facades.

Key Objectives:

- Eco-1 Electrical Solutions required a solution that would be durable to withstand various environmental conditions.
- Due to the growing use of electric vehicles, the retail park had a new requirement to provide a number of EV charging facilities throughout various areas of the carpark. Therefore, the pillar was required to supply power for EV charge points, as well as carpark lighting schemes.
- As the retail park has a small number of unoccupied units to accommodate future growth, the solution also needed to be futureproof for growing power distribution requirements.

* Pillar once installed

* EV charge point in Park

Solution:

Lucy Zodion provided Eco-1 Electrical Solutions with a large pre-wired power distribution unit to the height of 2284mm and width of 2000mm that considered the objectives from the start and developed a design for the equipment within, based on the specification provided. The unit was made from galvanised steel and populated with the electrical components required for carpark lighting and EV charging, in-house at Lucy Zodion:

- **Pillar specification:** 250A TPN switch fuse. 18 way TPN (250A) distribution board. 2 part photocell to control lighting circuits.

Results:

Now the project is complete, Gallagher Shopping Park has an adequate power supply that ensures outdoor areas are lit, providing power and street lighting control to approximately 12 carpark lighting columns. This offers a secure and accessible car parking zone for visitors to the retail park. The pillar, in the bespoke size of 2284mm tall, also provides 4 dual purpose EV charging units with up to 35kW each via 8 32A MCBs built within the pillar. The solution met the following objectives:

- **Durable** - Made from heavy duty galvanised steel, the shells of the enclosure are durable to withstand extreme weather conditions, with an IP65 rating on the door seal that helps protect the electrical equipment within for prolonged use and public safety. In order to ensure electrical equipment is further protected; the interior distribution board was designed and built with most components above 600mm from ground level, should the unlikely event of water ingress occur from the flower bed surrounding the unit.

- **Multipurpose** – The power distribution enclosure was equipped with a number of street lighting control and power distribution components to ensure both EV charge points and carpark lighting columns work consistently throughout the Park. Lucy Zodion's Design Centre worked with Eco-1to develop a bespoke solution that met their specification, with features that include:
  - Lucy Zodion SS55 Photocell to control the carpark lighting scheme, in line with the ambient lighting levels outside of the unit.
  - A switch fuse was included and the distribution section was populated with MCBs to power and control supply from the electricity company to the lighting scheme within the Shopping Park.
  - A number of MCBs were also integrated within the main switchboard to feed power to the EV charge points, CCTV cameras within close proximity of the unit, as well as for festive lighting requirements at Christmas and in other seasonal events.

Stephen Dudley, Project Engineer at Eco-1 Electrical Solutions, comments on the project:

"For this project, we worked together with Lucy Zodion to develop a suitable solution that met our requirements. The main need for the pillar was to supply power to the four new fast EV charge points that would enable shoppers to charge up while they browse. From sign-off of the design the pillar was available for installation within 6 weeks, which helped us stay on plan for the project."

Conclusion:

The solution Lucy Zodion provided for the Gallagher Park project met key objectives by ensuring that the specification requirements were understood from the very start. This meant that once the pillars were built, both Eco-1 and the Gallagher Park team got what they expected and could implement the pillar within the agreed time plan. The enclosure now adequately feeds power to EV charge points, helping shoppers power-up while they browse the many stores the retail park has to offer.

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