

## Case Study

# Improving delineation with Active Road Studs



### Background

Highways across the States of Guernsey predominantly consist of narrow, unlit, often coastal, roads with sharp bends, hills and valleys. Most rural roads have limited white line delineation occasionally including traditional retro-reflective road studs which are often in a poor condition providing only limited delineation of the road ahead.

Although accident rates on the island are low and the national speed limit does not exceed 35mph, the lack of consistent and effective delineation meant drivers perceived the roads as in need of enhanced night-time safety measures.

However, the absence of street lighting or access to mains power due to the coastal and rural locations presented challenges. Another influencing factor was the need to preserve the local landscape which would have been spoiled by installing roadside infrastructure.

### Solution

Clearview representatives undertook site surveys and produced a report suggesting effective solutions, including States of Guernsey's chosen option for installing SolarLite Active Road Studs.

Unlike traditional retro-reflective studs which rely upon the beam of a headlight to provide up to 90 metres of delineation, Clearview's SolarLite Active Road Studs use a solar-powered LEDs to proactively project up to 900 metres of visibility. By offering 10 times more visibility, the studs also offer 10 times more driver reaction time to adapt to changes in the road whilst the use of sustainable energy eliminates the needs for mains power or unsightly roadside infrastructure.

"The feedback from the motoring public has been very positive with many people suggesting more sites where they would like to see SolarLite Active Road Studs installed. We are considering further sites and also replacing existing reflective studs with the new SolarLite Active Road Studs."

**Kevin Lesbirel, States of Guernsey Senior Traffic Services Officer**

As the performance of the studs is no longer reliant upon the reflection from a headlight beam, pedestrians and cyclists travelling along the routes also benefit from the enhanced delineation.

With an operational lifespan of up to 10 years, the SolarLite Active Road Studs are effective for up to four times longer than retro-reflective studs and offer undiminished performance, meaning they are as bright on their first day as they are on their last.

The studs were initially installed along the La Neuve Rue at Albecq and Route de la Lague / Route de Rocquaine at Fort Grey. Following installation, a survey of drivers by Clearview found:

- 92 percent felt reasonably or totally safe driving the La Neuve Rue at Albecq after the upgrade compared to 40 percent before.
- 79 percent felt reasonably or totally safe driving on Route de la Lague / Route de Rocquaine at Fort Grey after the upgrade compared to 46 percent before.
- 84 percent described the night time visibility of the road layout as greatly improved following the installation of Active Road Studs.

States of Guernsey were so impressed with the scheme, they immediately commissioned a second phase of work to enhance delineation at an additional four locations on the island.

### Key Benefits

- Enhanced delineation creates increased reaction time for drivers
- Long lasting and undiminished performance reduces maintenance costs and provides better value for money
- No need for mains power or unsightly roadside equipment means effective delineation can be achieved in rural areas
- Effective delineation also provides increased guidance for pedestrians and cyclists, making them feel safer