

CASE STUDY

A31 Ringwood



Project Summary

Kier Parkgate approached HRS to help keep their workforce safe whilst undertaking resurfacing works on the A31 within Highways England's Area 3 Asset Support Contract. With poor phone signal in the works area, alerting contractors to potential hazards using traditional methods may have been difficult. In addition, the client required a cost-effective solution for managing a large number of side road closures. As a result, the Intellicone Smart Closure System was an effective solution, ensuring site safety without any communication issues.

Challenges

The site, located at the western edge of the New Forest, an area with poor mobile phone coverage. The proposed closure spanned several kilometres between Ringwood and Stony Cross, the diversion route was particularly lengthy, and the risk of site incursions could be higher as a result. It was also adjacent to the built-up area of Ringwood and several smaller villages nearby, contributing to high traffic volumes in the area. As the A31 was a relatively straight dual carriageway, traffic speeds could be higher than normally anticipated, increasing the risk of injury to site operatives should any errant vehicles enter the site. A further challenge was the number of side roads that needed to be closed, which would have required an additional five gatemen to keep the closure fully staffed and secure.

Solutions

After discussing the site requirements with the client, HRS recommended the use of the Intellicone Smart Closure System. The system provides an instant warning to all operatives within the work zone, despite the poor mobile phone coverage in the area. In addition, the side road closures could be protected by using the yellow Portable Site

Alarms, which would enable the closure points to be monitored remotely. This would ensure that all closure points were protected and that everyone on site would be instantly alerted irrespective of their location, enabling them to reach a place of safety before an errant vehicle could arrive and cause injury.

Before works began, a geo-zone (digital map) of the site was created. Once the works commenced, the equipment was quick and easy to install by simply placing it within the geo-zone. For the side road closures, the Portable Site Alarms would emit a loud alarm in the event of an attempted breach, deterring a potential errant vehicle from entering site. It would also trigger a warning to everyone on site while providing the traffic management team with location information so they could manage the incursion. At the manned closure points, the alarm would be triggered by detecting motion within the Intellicone-enabled Dorman smart lamps located on cones, or by a panic button located with the gatemen. Each group of workers on site would also keep a Portable Site Alarm with them, which would receive the warning from the other equipment on site and provide an audio-visual alarm to the workers.

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The traffic management crew were able to view all the deployed equipment on the online portal, which gave peace of mind that the equipment was working as intended, as well as providing location information when responding to incidents. Every incident would also be recorded by the equipment and could be collated in a report for future use if required.

About the client



Kier Highways operate the Area 3 Asset Support Contract on behalf of Highways England. Kier is the UK's leading highways service provider, working with a wide range of partners who are collectively responsible for the roads we travel on. On behalf of their clients, they manage 30,000km of the UK's strategic and local authority road network, helping deliver a wide range of road, bridge and tunnel projects. They provide project planning, programming and delivery services for major road schemes as well as routine highway maintenance and operation.

Outcomes

The works took place over the course of 15 nights. Five breaches were stopped from becoming serious incidents during the works, with no injury to site staff or the passengers. Of these incidents, the alarm was triggered manually by the gatemen using the panic button twice, ensuring that the workforce were kept safe.

The remaining incidents were prevented by the Intellicone equipment. Two of these occasions occurred when a member of the public tried to breach the site at the unmanned side road closures but was deterred by the loud alarm emitted by the yellow Portable Site Alarm. This not only kept the workforce safe, but also ensured that the site could be managed cost-effectively while freeing up traffic management operatives to work on other projects in the area.

Without the use of the Intellicone Smart Closure System, the length of the site and the poor mobile phone coverage would have made it difficult to provide an adequate warning of errant vehicles to the on-site workforce. In addition, the cost of a traditional traffic management setup – where all closure points would have been staffed – would have been prohibitively expensive due to the number of side road closures that were required.



About HRS

HRS's mission is to provide technology-based safety solutions that will help to significantly reduce injuries and fatalities in temporary work zones, whilst providing the travelling public with accurate real-time information. Our digital solutions have been proven to safeguard workers on many occasions whilst also delivering net cost savings in temporary traffic management.

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