

## M1 Junctions 16-19 SMART Motorways

Leicestershire

Phi Group undertook the design, supply and installation of several; large gabion basket retaining walls for a motorway widening scheme in the M1.



### The project

All major motorways in the UK are being upgraded to SMART Motorways to help ease congestion. This involves extending the carriageway to 4 lanes by using the hard shoulder for additional running where required. To enable this emergency refuge areas need to be created and also additional signage installed. This often involves cutting into and extending existing embankments.

## The challenge

The main challenge with this project was installing the gabion baskets on a very busy live motorway. Delivery of materials was restricted and additional resources were required to act as banksmen and to adhere to the high levels of Health & Safety specified by both the Client and Phi Group.

## The solution

Gabion baskets were specified by the Client's Engineer, with retained heights up to 3.0M. In all Phi Group installed over 1,600m<sup>3</sup> of gabions, supplying both the 6G gabion infill stone and over 1,000m<sup>3</sup> of granular backfill material. Phi Group were responsible to coordinating the delivery of all of this material to the working area. This required careful programming and co-ordination with Costain Galliford Try.

## Project facts

### Owner(s)

Highways England

### Keller business unit(s)

Phi Group

### Main contractor(s)

Cosatain Galiford Try JV

### Engineer(s)

Atkins

### Solutions

Retaining structures

### Markets

Infrastructure

### Techniques

Gabion baskets

### Email address

[robert.torrington@phigroup.co.uk](mailto:robert.torrington@phigroup.co.uk)

### Phone number

01242 707600