

A465 Heads of the Valleys Section 2 Gilwern to Brynmawr, Wales

Costain Ltd

BIG Challenge 2015 submission category: Large scale permanent

Project overview

The A465 dualling scheme extends for 8.1km from west Brynmawr to immediately east of the Glanbaiden Junction near Gilwern.

The aim of the scheme is to upgrade the existing three lane carriageway to a dual carriageway. Approximately 5.8km is on-line (i.e. built over part of the existing road) and 2.3km off-line (i.e. built away from the existing road).

The project is a three year build commencing in 2015. The scheme is rurally set and particularly environmentally sensitive, with several European and UK designated sites one of which is Mynydd Llangatwg SAC (Special Area of Conservation) - the highest order of protected ecological site (under European legislation) designated, in part, for Lesser Horseshoe Bats.

This submission is in relation to extensive mitigation measures implemented for bat habitat protection, mitigation and enhancement implemented at the early stages of the A465 scheme.



Photo: Bat Mitigation Planting

What were the biodiversity conditions on site, prior to the enhancement?

Large parts of the scheme and surrounding areas are designated at international, national and local level for wildlife, habitats, landscape and heritage interests.

The designated sites includes the Usk Bat Sites SAC, the Mynydd Llangatwg SSSI, The Cwm Clydach Woodlands SAC, SSSI, NNR Geological SSSI World Heritage site Several SAMs

Were there any specific conditions that led to you carrying out this work?

The proposals could cause disturbance to bats that may be present at the time and destruction of the bat roosts.

Suitable mitigation will be undertaken to avoid death or injury to bats present at the time of demolition. Suitable alternative roosts will be provided in the locality to compensate for those that would be lost.

This has been managed and regulated by Natural Resources Wales through an agreed Bat Licence under the Conservation of Habitats and Species Regulations (2010).

The Bat License demonstrates the potential impact of the scheme and the range of suitable mitigation measures.

What were the biodiversity measures taken?

As part of this mitigation plan, the retention of all existing locations where lesser horseshoe bats (and other bat species) cross beneath the existing road and maintenance of existing vegetation corridors is considered vital.

The creation of 18.13ha of habitat suitable for bat foraging and commuting within the core foraging areas of lesser horseshoe maternity roosts, to replace that which would be lost (13.29ha).

Over 4,300 trees have been planted to compensate for site clearance, with the intension of improving this important and internationally recognised habitat a free-standing structure in appropriate locations).

The potential effect on bat use of maternity roosts, as well as the loss of foraging habitat along the Scheme, has been mitigated by provision of a purpose built lesser horseshoe bat maternity roost building.

The design is in keeping with its location in the Brecon Beacons National

Park. The roost is very well connected to lesser horseshoe bat foraging and commuting habitat, being immediately adjacent to the Nant Hafod dingle.

It has also been positioned to receive full sunlight for the majority of the day, providing warm conditions for breeding bats.

Cool areas have also be included on the ground floor for spring, autumn and winter roosting.

The building is a single-storey block building with a slate roof (lined with type 1f bituminous felt) over an uncluttered loft, 3m high to the ridge, i.e., a 'cut and pitch' roof with a traditional ridge board.

The building is 'L'- shaped configuration, with the elbow/corner/junction pointing south, to maximise solar gain throughout summer days. The overall volume of the building is approximately 250m³.

Two sheltered access points, suitable for lesser horseshoe bat light sampling activity would be provided with good connectivity to the Nant Hafod dingle.

Detailed planting specification around the roosts will be agreed with

NRW as these aspects are designed in detail.

How would you best describe the project?

Mitigation.

Further information

Prior to all site vegetation clearance, historical surveys and watching briefs were completed by competent bat specialists to ensure potential bat roosts were identified before clearance and retained where possible.

All vegetation to be retained as a result was identified via an agreed working procedure. Prior to the demolition of all structures which could potentially be bat roosts throughout the scheme, an inspection followed by the implementation of measures designed to prevent bats returning to the roost at night, including flood lighting during night to prevent bats returning.

A soft strip was undertaken under a watching brief by a competent bat specialist to ensure that if any bats were remaining within the structure, they were appropriately managed.

The design and structure of the purpose built maternity roost was developed by a competent bat specialist as

part of the schemes bat license submission to NRW. The design was then developed in collaboration with NRW to ensure the new roost is as attractive as possible as a maternity roost.

Working in collaboration with NRW has improved the structures design, but also resulted in significant delays to the completion of the maternity roost. Earlier engagement and design agreement with NRW would have avoided delays.

Over 4,300 plants have been strategically planted to improve bat connectivity to potential foraging habitats. The development of the scheme and ongoing monitoring of the effectiveness of the above mitigation measures shall be monitored throughout the scheme and during a 5 year aftercare period.

What was your personal motivation for carrying out the enhancement?

Several highly motivated and competent individuals have been involved in this aspect of the scheme to ensure the mitigation measures are as successful as possible to not just compensate for the A465 dualling works, but to improve the surrounding area with the hope of increasing bat numbers.