

A39 CANNINGTON TO SANDFORD HILL CYCLEWAY
A39, CANNINGTON, SOMERSET
SKANSKA/SOMERSET COUNTY COUNCIL

BIG Biodiversity Challenge Award Category: Small scale

Project overview

To mitigate the impact of Hinkley Point C construction traffic, a <1m wide path was replaced with 1.2km of 2.5m wide cycleway. At pre-construction, 848m hedgerow and several mature trees were removed. Following Project completion, the hedgerow and trees were replaced and enhanced along with additional hibernacula and bat boxes.

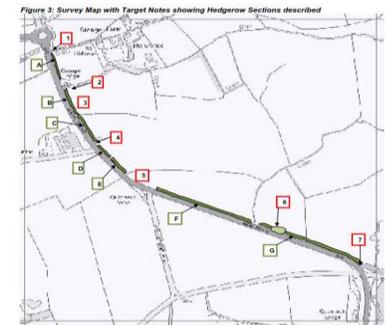
What were the biodiversity conditions on site, prior to the enhancement?

The baseline conditions on site consisted of a 1030m fragmented hedgerow with species rich areas containing native deciduous species mainly dominated by elm, hawthorn and privet. The hedgerow was not deemed 'important', however it was an S41 'Priority Habitat' and an application was required for removal. There was potential for bats in the large oak trees. Adjacent surveys had found strong populations of slow-worm and likely grass snake.

The cycleway creation was a requirement under the Hinkley Point C Section 106 agreement to mitigate the impacts of construction traffic on vulnerable users.



An image of the narrow footpath and adjacent hedgerow prior to the start of works



Survey map from Somerset Ecology Services hedgerow survey

What were the reasons behind this project?

A hedgerow and mature trees were removed to allow for the widening of a 1.2km footpath into a cycleway to comply with the Hinkley Point C Section 106 agreement to mitigate impacts of construction traffic on vulnerable road users. The cycle route connects off-road facilities between Cannington and Comwich to connect to Bridgwater. Further off-road facilities extend to Steart Marshes, one of the UK's largest new wetland reserves. The Scheme's purpose was to provide a safe off-road route for cyclists and pedestrians and encourage sustainable travel. The planting has created a new biodiversity corridor linking West Somerset and Exmoor National Park.

What were the biodiversity measures taken?

Somerset County Council, Somerset Ecology Services, and Skanska worked collaboratively throughout the design with many measures introduced to ensure biodiversity benefits:

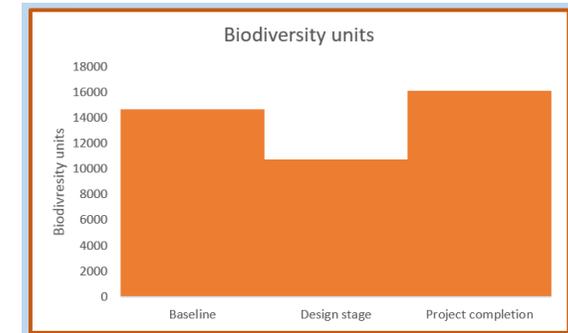
- Full hedgerow survey prior to the removal application, checking for signs of legally protected species and hedgerow capacity
- A new mixed species double staggered hedgerow was planted along with native trees
- Planting of 6275 2 year transplants comprising of Hawthorn, Blackthorn Prunus spinosa, Hazel Corylus avellana, Common Dogwood Cornus dogwood, Field Maple Acer campestre, Spindle Euonymus europaea and Wild Privet Ligustrum vulgare aligning with Schedule 3 The Hedgerow Regulations 1997
- Sedgemoor Tree Services created an innovative planting plan to ensure a truly mixed species hedgerow
- 56 4m trees, including English Oak Quercus robur, Field Maple Acer campestre, Hornbeam Carpinus betulus and Alder Alnus glutinosa were planted along the cycleway within the hedge line to create a corridor landscape
- Newly created embankment was sown with a wildflower seed mix creating a diverse habitat to attract invertebrates, birds and mammals.
- Using site won wood, which would have been a waste, four bug hotels and six log piles were created to provide invertebrate nesting sites; food source and habitat
- Two bat boxes installed in the surrounding trees to accompany the hedgerow creating 'commuter routes' for bat species



Planting plan by Sedgemoor Tree Services to ensure mixed species hedge



Bug hotel & hibernacula installed along hedgerow



Biodiversity Calculator outcome: +10%

By providing and enhancing hedgerow and wild flower habitat it will maintain and encourage some of the 130 UK Biodiversity Action Plan species to use the area. The enhancements will create an improved corridor landscape and provide a wider legacy for the area as a gateway to West Somerset and Exmoor National Park. A 5 year maintenance programme is implemented to ensure longevity.

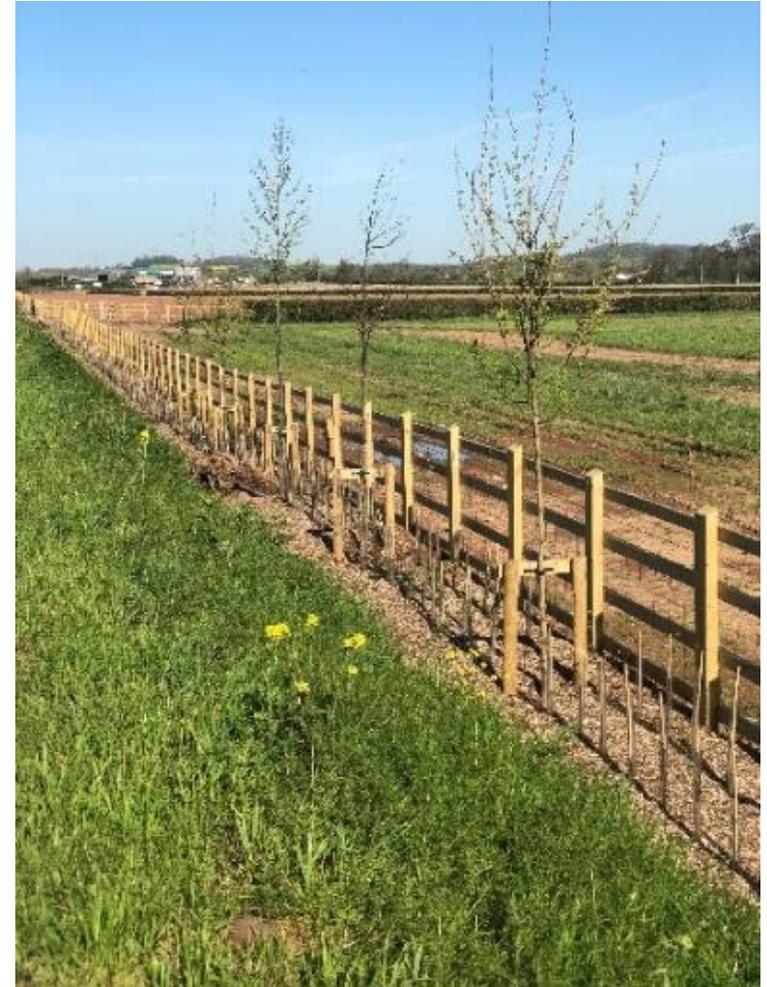
Through using Skanska's Biodiversity Calculator derived from the DEFRA metric, it has been calculated that the planting enhancements have made a net gain of 10%, validating the designs biodiversity enhancements.

Further information

The hedgerow and tree removal enabled the widening of the existing footpath to a 2.5m multi-use cycleway creating a route for vulnerable road users and encourage sustainable travel. The Scheme introduced new practices and with the help of Skanska's design changes, enabled significant carbon savings. The changes focussed around replacing 99.3% of virgin aggregate with recycled; the reuse of haul road material for construction and the use of Tarmac's Ultifastpath. The design changes created a 21.9% reduction in embodied carbon.

The local communities, especially Cannington (population: 4500) and Wembdon (population: 3600) have benefitted from having an easily accessible and safer off-road sustainable travel route linking to further facilities in Bridgwater (population 35000). Following completion, on the 21st December 2017 a permanent cycle counter was installed and a winter video survey undertaken. This showed use by 8 pedestrians and 33 cyclists per a day, this is anticipated to increase in the summer and another video survey will be undertaken.

The completed project will enable people and the surrounding landscape to integrate together, providing long term sustainability and promoting health and wellbeing of people and nature.



Showing the wild flower seeded bank, mature trees and hibernacula

The use of the innovative planting plan; reusing site won wood to create hibernacula and planting of more mature trees has shown an enhancement in biodiversity of +10%, which is a definite improvement when considering the adjacent A39, a key freight route for Hinkley Point C. Going forward, the achievements will enable more ambition during future designs with Somerset County Council and promote collaborative working.

Project Team

- Somerset County Council's designer Steve Gooding designed the Scheme and took an active role in the biodiversity enhancements
- Skanska, SCC's contractor, delivered the Project via the Small Improvements Schemes team: Mark Eldridge, Daniel Lewis, Charlie Savin
- Drayton Construction Ltd as the main sub-contractor constructing the Project
- Sedgemoor Tree Services Ltd were sub-contracted by Skanska and undertook the planting and biodiversity enhancements

What was the motivation for carrying out the enhancement?

Part of Skanska's purpose is to make a clear contribution to society and the environment around us, making an active contribution to a green society. Skanska's Somerset Highway's Small Improvements Scheme team showed dedication through the implementation of design changes and liaison with Somerset County Council to show the benefits of the changes. Through the replacement and enhancements of biodiversity within the Project a legacy is provided that is befitting of the area as the gateway to the West Somerset and Exmoor National Park. The sustainable commuting route created during this Scheme will help to contribute towards a sustainable society.



Showing the wild flower seeded bank, mature trees and hibernacula



Sections of the cycleway and planting with hibernacula and larger trees