

C10871 - IEP Hitachi Rail

Stoke Gifford, Bristol, South Gloucester

Volker Fitzpatrick

BIG Challenge 2015 submission category: Pollinator

Project overview

The Intercity Express Programme (IEP) is to deliver a fleet of new long-distance trains onto the railway network to replace the current intercity fleet and to increase passenger capacity.

As part of the IEP programme, Hitachi Rail Europe Ltd (Hitachi) proposed to develop and construct a train maintenance depot and associated infrastructure at Stoke Gifford Junction, Bristol.

The project is estimated to cost £80 million. A large number of staff was involved in the creation of the biodiversity measures. The total cost was £100 which was for majority of plants.

All materials and some plants were sourced from site or donated from member of the team. The location chosen for the structures were in front of the welfare cabin with the hanging baskets attached to the hand rails leading up the building.



Photo: Hanging helmet baskets

The setting is semi-rural nestled amongst rail lines and residential housing.

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

Despite the land being perilously used as a land fill there was a large variety of species found when a survey was carried out in 2011, 31 invertebrates, slow worms, birds and other insects were found.

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

There were no planning conditions put in place prior to development. It was an additional feature to the project to mitigate against

the effects of construction and help to boost the local population of bees, butterflies, birds and insects.

What were the biodiversity measures taken?

This project can be replicated on other sites. It was simple to set up, not costly, and did not require a lot of man hours and is low maintenance.

Two people were tasked with watering the flowers daily. The measures put in place have already seen an increase in bees, butterflies and caterpillars as the flowers selected were a mixture of wild flowers with supplemented cultivated plants known to attract bees.

and butterflies, this in turn should result in more wildlife being attracted to the area, thus continually improving the biodiversity of the site.

Many of the workforce have engaged with the project ranging from donating personal protective equipment known as PPE (boots, hard hats, high viz clothing), plants, materials and their time to cut and source material needed.

How would you best describe the project?

An enhancement.

Further information

To source the materials for the project a collection box was placed in the male changing room and in the canteen; the workers were asked if they would donate their old PPE.

Old discarded pipes were sourced from site. Which were then up cycled to create the hanging baskets and plant pots to house the plants.

Many of the workers volunteered their time to assist with the sourcing and cutting materials, helping with planting and donating plants from their gardens.

A number of plants used were also sourced from the site's newly flowered bunds that the project had



Photo: Pipe plant pots

constructed using excavated materials from site. The plants pots and hanging baskets were chosen to help increase visits from bees, butterflies and caterpillars.

A survey was carried out to identify areas which had some form of wildlife activity to ensure the areas chosen for development would complement and encourage a diverse and increasing population of species to thrive in the newly developed site.

However should this be done again I would like to engage with a local school and conduct a lesson in biodiversity to involve the school children in the design and build process of the plant pots.

Furthermore a learning tool on biodiversity has been created so the company can engage with schools on further projects to enhance their learning and get them involved with the environment.

The long term benefits has resulted in an increase of wildlife in an area which had very little prior to development.

This project has also boosted the workforce's morale, with most of the team smiling or passing on positive messages about the work and how it has brightened up the site.

What was your personal motivation for carrying out the enhancement?

As a geography student working within the environment department I felt it vital to incorporate some biodiversity design into the build to try and boost the local population of species.

Despite it being a temporary measure it is replicable so can be carried on in further projects.



Photo: Pipe plant pots