VANGARDE SHOPPING PARK
YORK, NORTH YORKSHIRE

Oakgate Group PLC, Caddick Construction, Workman Retail, AECOM

BIG Biodiversity Challenge Award category: Medium Scale Permanent Award

Project overview

Situated on the outskirts of York, Vangarde Shopping Park is a popular development which includes a flagship John Lewis store (the first department store in the world to be awarded BREEAM Outstanding status), the largest Marks and Spencer store in the region and Next. The shopping park, which was developed by Oakgate Group PLC and constructed by Caddick Construction, opened in April 2014.

This ongoing project started with Great-Crested Newts (GCN) present on-site translocated under special licence from Natural England prior to construction, to newly created ponds and grassland in an off-site GCN mitigation area on the opposite side of the main access to Vangarde.

Four bespoke amphibian tunnels were constructed beneath the access road to ensure long-term habitat connectivity for newts between the new mitigation area, the SUDS ponds and terrestrial habitat within the site.

Now, the project continues to ensure the habitat thrives through various biodiversity measures taken.

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

The site comprised mostly horse-grazed pasture with a fragmented mature hedgerow network, along with two shallow ponds supporting a small population of great crested newts. The ponds were at risk of becoming completely dried out and thus unsuitable for newts due to marginal vegetation encroachment.

Vangarde Shopping Park, York

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

Creation of the off-site GCN mitigation habitat and tunnels was to satisfy the Natural England EPSM Licence requirements. SUDS ponds were created to balance surface water drainage on-site but were also designed to be suitable for GCN in the long term. Significant net biodiversity gain was achieved through the planting of extensive wildflower grassland on the banks of the SUDS ponds, bat box installation and log pile refuges for newts and invertebrates.

These measures were well in excess of those required to offset negligible impacts on ecology. Long-term habitat management and monitoring was required as a condition of planning.

What were the biodiversity measures taken?

A bespoke GCN mitigation area comprising six new ponds was created off-site to mitigate for two ponds lost to development. Approximately 1.5 ha of wildflower grassland, hedgerows and SUDS ponds was created on-site and contributes towards significant biodiversity enhancement on site to complement the mitigation delivered off-site for GCN. These new habitats sit alongside existing hedgerows and mature trees retained within the scheme design, for which a Habitat Management Plan is in place.

The aquatic and terrestrial habitat provided is of much higher ecological value to the resident amphibian population than that lost to development, and provides foraging areas for bats and other species such as wetland birds, water vole and otter, which were not previously present on site.

The SUDS ponds and GCN mitigation area on the Vangarde site are linked by four purpose-built amphibian tunnels beneath the access road, which have been proven to be successful in encouraging newts, other species of amphibians and small mammals to migrate between the two areas.

SUDS ponds at Vangarde Shopping Park

What were the biodiversity measures taken? *(cont)*

Annual monitoring of the amphibian tunnels was a requirement of the GCN licence. However, instead of settling for traditional monitoring techniques, Oakgate and its ecologists, AECOM, put the scheme forward for inclusion in a UK-wide Natural England funded research project co-supervised by Froglife in conjunction with the University of Hull and FERA, which aims to determine the effectiveness of amphibian tunnels to inform/ refine future design guidance.

What were the biodiversity measures taken? *(cont)*

The Vangarde GCN tunnels are now carefully monitored by a high-specification motion-sensitive camera and the results are being incorporated into Froglife's research. Workman Retail continues to support the ongoing tunnel monitoring in conjunction with the AECOM ecology team and Froglife, as well as ensuring their landscape maintenance teams sensitively manage habitats on the site to maintain their biodiversity interest and to meet the objectives of the Habitat Management Plan.

How would you best describe the project?

An enhancement

Further information

The GCN translocation resulted in around a six-month delay to the opening of the shopping park due to the need to suspend translocation over the winter whilst newts were hibernating, which generated some negative publicity. However, by embracing their amphibious neighbours and taking the opportunity to use specially-commissioned artwork around the site to educate visitors, the developers were able to engage with the local community and convey the value of site's ecology to visitors by using it as an attraction.

Annual monitoring by AECOM has recorded significant increases in peak GCN numbers in the new ponds from 9 in 2013 to 88 in 2016. Newts were regularly recorded in the SUDS ponds for the first time in spring 2016, and the Froglife camera trap monitoring confirms newts are using the tunnel crossings.

In creating such a large area of habitat and making space for more than just the target species, the new habitats have now been colonised by frogs, toads and common newts as well as otters and water voles, which came as a surprise because the site is 1km from the nearest river. The habitat enhancements have resulted in a high quality and environmentally-sensitive shopping park with eco-friendly buildings.

GCN information/ artwork at Vangarde Shopping Park

It is at the heart of the community and supports a wide range of environmental and charitable initiatives such as Big Clean Up, a local council initiative to promote volunteering opportunities to improve the city.

What was your personal motivation for carrying out the enhancement?

This ongoing project is important in ensuring the delivery of their habitat was going to make a real contribution towards local biodiversity and leave a lasting legacy for future generations to enjoy, along with the opportunity to educate visitors on biodiversity and the project's impact on the local environment.