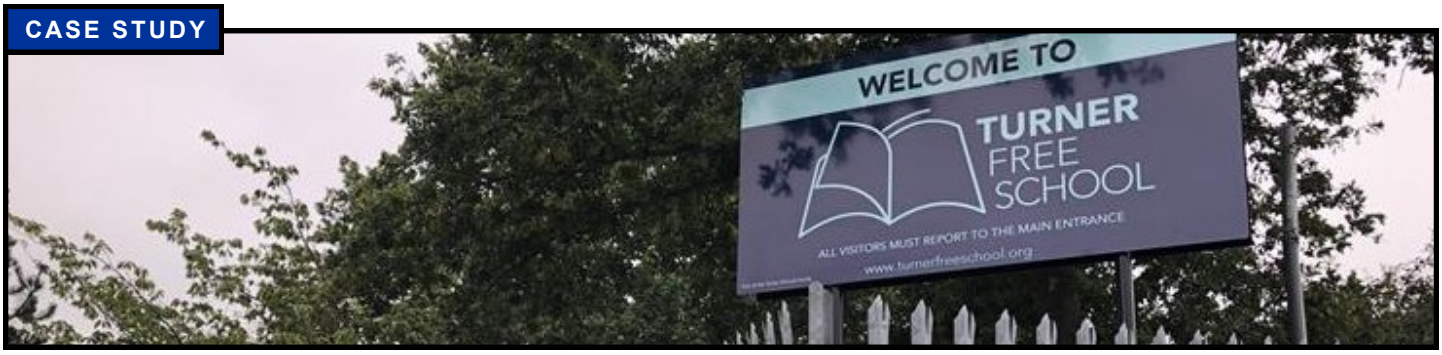
CASE STUDY



Turner Free School

WHAT'S THE STORY?

Plowman Craven's in-house environmental planning team assisted with the redevelopment of the Turner Free School in Kent, completing a range of environmental surveys to identify the environmental risk of the proposed work.

The multi-phased development includes the construction of a prefabricated classroom, followed by the refurbishment of existing facilities on site.

A Preliminary Ecological Appraisal showed that there was suitable habitat for a number of protected species on the site, including reptiles, bats and great crested newts.

Our Environmental Planning team was appointed to survey the site to identify whether these species were present and, if so, to determine the population of the species and advise if any mitigation measures were required.

Reptiles

The Preliminary Ecological Appraisal identified that the habitat around the perimeter of the site was suitable for use by reptiles - this triggered the requirement for further surveys in the area.

To carry out a reptile survey of the area, squares of heavy-grade roofing felt were placed in locations of suitable habitat to act as artificial heat traps.

Once in place, six subsequent visits were undertaken to observe whether the refugia were being used. No reptiles were seen during these visits and it was concluded that reptiles were likely to be absent from the site. As a result no mitigation measures were recommended.

AT A GLANCE:

- Bats survey
- Reptile survey
- Great crested newt survey
- Arboricultural and flood risk
- Heritage risk and acoustic survey

Bats

To gain an estimate of the bat population of the building, an emergence survey was required.

Four surveyors were deployed to conduct dusk-emergence surveys – starting 15 minutes prior to sunset and continuing 90 minutes after sunset.

To supplement these observations, any bat calls were to be recorded and analysed to verify the species of bat that use the site.

The survey identified that bats were not using the building on site and therefore no further surveys or mitigation was required prior to refurbishment of the buildings surveyed.

CASE STUDY

Great crested newt

To survey the on-site pond for great crested newts, an environmental DNA test was undertaken.

Great crested newt DNA is released into aquatic environments through shed skin cells, urine, faeces and saliva. It can persist in water for several weeks and a test has been developed for detecting the eDNA of the species – which is an effective way to determine presence of these amphibians.

Other ponds close to the site were also assessed using the same methodology but also returned a negative result.

As other amphibians (namely the smooth newt) were actually observed during the survey, a precautionary approach was recommended across the site for ground level vegetation clearance.

Additional Environmental Support

- **Ecological & Environmental Expertise**

  Our surveys and consultancy have allowed the client to comprehensively understand the risk the local environment represents in the context of the proposed development. The measured approach of Plowman Craven's team has delivered solutions to reduce/ mitigate the risk of contravening environmental legislation, whilst ensuring the development doesn't impact the local environment negatively. In addition to the ecological surveys, Plowman Craven completed a number of environmental surveys.

- **Aboricultural survey**

  An arboricultural desk study suggested proposed areas for protective fencing to be in place during construction to avoid damage to existing trees on site.

- **Acoustic survey**

  The acoustic survey helped to identify the areas which would be suitable as outdoor play areas, and the potential glazing requirements of any new or refurbished buildings, by comparing noise measurement to the levels outlined in BB93 – Building Bulletin 93 Acoustic Design of Schools.

- **Flood & Heritage Assessment**

  It was discovered that the site was at a low-high risk of surface water flooding and we therefore advised that the development proposals mitigated this risk or avoided development within those particular areas. The heritage risk report identified that the proposed works were localised and unlikely to affect archaeological remains.

Link to the web-based version

About Plowman Craven

Plowman Craven provides integrated measurement and consultancy services to the property and infrastructure markets, pioneering the use of technical innovation to deliver proven expertise and trusted results throughout the project lifecycle.

Head Office:
Plowman Craven House
2 Lea Business Park, Lower Luton Rd
Harpenden, Herts. AL5 5EQ
Tel: +44 (0)1582 765566

London
Tel: +44 (0)20 7490 7700

Birmingham
Tel: +44 (0)121 262 4218

Email: post@plowmancraven.co.uk