



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE



PRELIMINARY ECOLOGICAL APPRAISAL

LAND EAST OF POOL QUAY

Project name: Land to the East of Pool Quay, Pool Quay,
Welshpool, Powys, SY21 9JS

Grid Reference: SJ25721155

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1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the construction of a slurry store on land east of Pool Quay, Welshpool.

Arbor Vitae were commissioned by Roger Parry and Partners to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

1.2 SCOPE OF SURVEY

The survey is primarily designed to:

- Identify and record habitats and important ecological features on site;
- Evaluate the potential of the proposed development site to provide opportunities for protected species;
- Determine any likely impact which the development and landscape proposals may have on these.
- Identify opportunities for the enhancement of habitats and biodiversity features on site.

1.3 KEY PRINCIPLES

All ecological surveys conducted by Arbor Vitae Environment Ltd are underpinned by the following key principles, as outlined by CIEEM (2018):

Avoidance - Seek options that avoid harm to ecological features (for example, by locating on an alternative site).

Mitigation - Adverse effects should be avoided or minimized through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancements - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

2 SITE DESCRIPTION

2.1 LOCATION, LANDSCAPE, AND BACKGROUND

The site for the proposed slurry store is located between Welshpool and Four Crosses, east of the small village named Pool Quay. The site is a small, modified grassland field, directly adjacent to the A483 road.

The surrounding landscape consists of farmsteads to the west, over the main road, and arable fields to the north/south. The River Severn runs approximately 120m east of the site. Directly north is a public right of way and track that leads over the River Severn.

3 SURVEY METHODOLOGY

3.1 DESK STUDY

An initial desk study was composed to gain background information regarding any protected species or designations within the area. The main sources of information were MagicMap, Data Map Wales and NBN Atlas.

3.2 SITE SURVEY

A site visit was made on 05/11/2024. The survey was carried out in accordance with CIEEM (2017) best practice guidelines. The objective of the survey was to find and record any signs of use by protected species and to note the habitat features present.

An assessment of the available habitats both on and adjacent to the site led to consideration of the potential of the site for the following protected species:

- Badger
- Bats
- Breeding birds
- Great Crested Newt
- Otters

The survey methodology was tailored to evaluate the area for these species in the following ways:

Badger

An area within 50 metres of the site was closely searched for the following signs of badger activity:

- Setts,

- Tracks and footprints,
- Latrines,
- Snuffle holes.

Bats

The site was assessed in terms of its suitability to support bat species. Hedgerow habitat and nearby potential habitat were assessed and recorded and potential impacts from the proposals considered.

Breeding birds

The site was assessed in terms of its suitability to support breeding bird populations. Hedgerow habitat and nearby potential habitat were assessed and recorded.

Great crested newt

A desk study and a ground search were conducted to search for any areas of open water within 250 metres. Waterbodies were then assessed based on the Habitat Suitability Index for great crested newts (Oldham et al., 2000 and ARG UK, 2010).

Otter

Any water courses within the area and appropriate terrestrial land were searched for the following field signs:

- Spraint,
- Footprints,
- Feeding remains.

3.3 PERSONNEL

The survey was carried out by Phillipa Stirling MSc ACIEEM: Ecologist. Natural Resources Wales bat licence number: S094220-1 and GCN licence number: S090921/1.

And Charlotte Skinner MSc: Assistant Ecologist.

3.4 CONSTRAINTS

Breeding birds would not have been present at the time of the survey, but previous nesting and appropriate nesting sites would have been apparent.

4 SURVEY RESULTS

4.1 DESK STUDY

The desk study found that within 1km of the site there were the following designations:

Name	Designation	Distance from site
Montgomery Canal	Site of Special Scientific Interest	140m
The search included Ramsar, SSSI, SAC, SPA, LWS, NNR and LNR. ¹		

Results from the desk study revealed that within a 1km radius of the proposed development site the following protected species have been recorded:

Species	Distance	Protection
Mammals		
Otter	0.3-1km	European Protected Species, Wildlife and Countryside Act 1981.
Badger	0.3-1km	Protection of Badgers Act 1992, Wildlife and Countryside Act 1981.
Daubenton's bat Noctule Common pipistrelle Soprano pipistrelle	0.3-1km	European Protected Species, Wildlife and Countryside Act 1981.
Birds		
Barn Owl Fieldfare Kestrel Kingfisher Peregrine Redwing	0.2-1km	Wildlife and Countryside Act 1981.
Reptiles		
Grass snake	0.8km	Wildlife and Countryside Act 1981.
Adder	1km	Wildlife and Countryside Act 1981.

¹ SSSI: Site of Special Scientific Interest, SAC: Special Area of Conservation, SPA: Special Protection Area, LWS: Local Wildlife Site NNR: National Nature Reserve, LNR: Local Nature Reserve.

4.2 HABITATS ON SITE

All habitats are classified using JNCC's Phase 1 Habitat Survey Handbook (JNCC, 2010).

Modified Grassland

The proposed slurry store will be situated on an area of modified grassland and due to the vicinity of the River Severn, the grassland is often flooded. The following species were identified during the survey: Perennial ryegrass, Cock's foot, white clover, dandelion, creeping buttercup, broadleaved dock, cleavers, mayweed, ribwort plantain and pineapple weed.

4.3 ADJACENT HABITATS

Native hedgerow

There is a native hedgerow that runs north of the site, which lines the public right of way and track. The following species were identified: Honeysuckle, hazel, hawthorn, sycamore and ivy with a strip of modified grassland that runs along the base which is dominated by nettle.

River

The River Severn runs 120m east of the site, with a deep channel, vegetated embankments and broadleaved trees lining the banks such as alder, crack and goat willow, oak and ash. Himalayan balsam is also present along the riverbanks.

There is a bridge that crosses the river, which leads from the public right of way.

Artificial, unvegetated/unsealed

The track to the north of the site is crushed stone and leads to the bridge, in addition there is a layby to the west of the site that runs from the main A484 road.

4.4 PROTECTED SPECIES

Badgers

No signs of badger were identified on site or within the surrounding landscape and the closest record is 300m from the site.

Bats

The site does not offer any suitable potential roosting features for bat species. There are no buildings within the site and no individual trees. No further survey work is required in regard to this species.

Breeding birds

The hedgerow adjacent to the site does provide suitable opportunities for generalist bird species. The grassland does not offer suitable opportunities for ground nesting bird species.

Great Crested Newt

No ponds were identified within 250m of the proposed development site, in addition, there are no historical records of great crested newts within 1km of the site. Therefore, no further survey work is required with regard to this species.

Otters

Fresh otter spraint was identified under the bridge on the banks of the River Severn 120m from the site. There were also historical records of otter within 1km of the site.

There was no evidence of otter within the site, or the field that is proposed for development.

5 POTENTIAL ECOLOGICAL IMPACT

5.1 HABITAT ASSESSMENT

Modified grassland

The proposed plan will result in the loss of 0.12Ha of modified grassland. This type of habitat is of limited ecological significance with very limited botanical biodiversity. No mitigation is required but ecological enhancement measures will be included.

Protected sites

The Montgomery Canal lies 140m northwest of the site but is separated from the site by the main road and several properties. The plans are not expected to have any impact upon this SSSI.

5.2 PROTECTED SPECIES ASSESSMENT

Badger

There were no signs of badger within the site in addition to the surrounding landscape. Therefore, it is unlikely the proposals will have an impact on this species.

Bats

The plans will not have had any direct or indirect impact upon bats. There are no adjacent trees or buildings that will be affected by the slurry store and there will be no additional lighting that could affect the species.

Breeding birds

The plans do not result in any hedgerow or vegetation removal; therefore, the plans are unlikely to affect breeding birds.

Great crested newt

There are no ponds within 250m of the site, in addition to no historical records of great crested newts within 1km of the site.

Studies have demonstrated that 95% of all summer refuges of GCN fall within 63m of their summer breeding pond (Jehle, 2000). Subsequent studies also found that capture rates of GCN were at their highest within 50m of a breeding site with a significant reduction in capture rates beyond 100m (Cresswell and Whitworth, 2004).

Therefore, it is unlikely the proposals will have any impact on this species.

Otters

There was no sign of otter within the site boundary or the surrounding field. The nearest sign of otter was identified on the banks of the River Severn, 120m from the site. The proposed slurry store does not involve additional lighting nor will it have any direct impacts upon otters or terrestrial habitats which might be in use by them. There are no plans to alter the land near to the riverbank, or the river itself.

General avoidance measures will be adopted to remove any residual risk to this species.

6 AVOIDANCE, MITIGATION AND ENHANCEMENT

6.1 HABITAT MITIGATION

The loss of a small area of modified grassland is of negligible ecological impact, especially due to the lack of botanical diversity within the sward. No specific mitigation with regard to modified grassland is required but enhancement measures will be adopted.

6.2 PROTECTED SPECIES MITIGATION

General Avoidance Measures

The following measures will be implemented to decrease the likelihood of killing/injuring small animals which may be present locally:

- If piles of rubble, logs, bricks, other loose materials or other potential refuges are to be disturbed, this will be done by hand and carried out during the active season (March to October) when the weather is warm to allow animals to disperse naturally.
- The grassland areas will be kept short prior to and during construction to avoid creating attractive habitats for wildlife.
- All building materials, rubble, bricks and soil must be stored on raised platform (e.g. wooden pallets) to prevent their use as refuges by wildlife.
- Where possible, trenches will be opened and closed in the same day to prevent any wildlife becoming trapped. If it is necessary to leave a trench open overnight then it will be provided with a means of escape in the form of a shallow ramp, or an access ramp will be left within each separate excavation/ditch to allow badgers/ otters or other to escape should they fall in.
- Any open pipework will be capped overnight. All open trenches and pipework will be inspected at the start of each working day to ensure no animal is trapped.
- Any common reptiles or amphibians discovered will be allowed to naturally disperse. Advice will be sought from an appropriately qualified and experienced ecologist if large numbers of common reptiles or amphibians are present.
- If a great crested newt is discovered at any stage, then all work must immediately halt and an appropriately qualified and experienced ecologist and Natural Resources Wales will be contacted for advice.
- Any chemicals or harmful substances will be kept within a locked container, off the ground and ideally within a structure on site.

6.3 ECOLOGICAL ENHANCEMENT

A native tree planting scheme will be adopted at the site, which will also provide a screening for the slurry store from the road:

- 5 x native trees to be planted along the west side of the proposed slurry tower. Suitable species include: oak, field maple, rowan, hazel.
- Additional wildlife features will include 2x Woodcrete bat box and 1x Woodcrete bird box to be installed into a nearby mature tree.

7 SUMMARY

Planning permission will be sought for the construction of a slurry store on land at Pool Quay, Welshpool. Arbor Vitae were commissioned by Roger Parry and Partners to undertake a Preliminary Ecological Appraisal in order to assess the impact of the development on habitats and protected species.

The proposed plan will result in the loss of 0.12ha of modified grassland. This type of habitat is of limited ecological significance with limited botanical biodiversity. No specific mitigation is required.

There were no signs of badger within the site in addition to the surrounding landscape. Therefore, it is unlikely the proposals will have an impact on this species.

The plans will not have had any direct impact upon bats, or indirect. There are no adjacent trees or buildings that will be affected by the slurry store and there will be no additional lighting that could affect the species.

The plans do not result in any hedgerow or vegetation removal; therefore, the plans are unlikely to affect breeding birds.

There are no ponds within 250m of the site, in addition to no historical records of great crested newts within 1km of the site. Therefore, it is unlikely the proposals will have any impact on this species.

There was no sign of otter within the site boundary or the surrounding field. The nearest sign of otter was identified on the River Severn banks, 120m from the site. The proposed slurry store does not involve additional lighting or will have any direct impacts upon otters.

General avoidance measures will be implemented to remove any residual risk upon otters and decrease the likelihood of killing/injuring small animals which may be present locally.

A native tree planting scheme will be adopted on the site, which will also provide a screening for the slurry store from the road. Additional wildlife features will include 2x Woodcrete bat box and 1x Woodcrete bird box to be installed into a nearby mature tree.

8 REFERENCES

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FIGURE 1 LOCATION

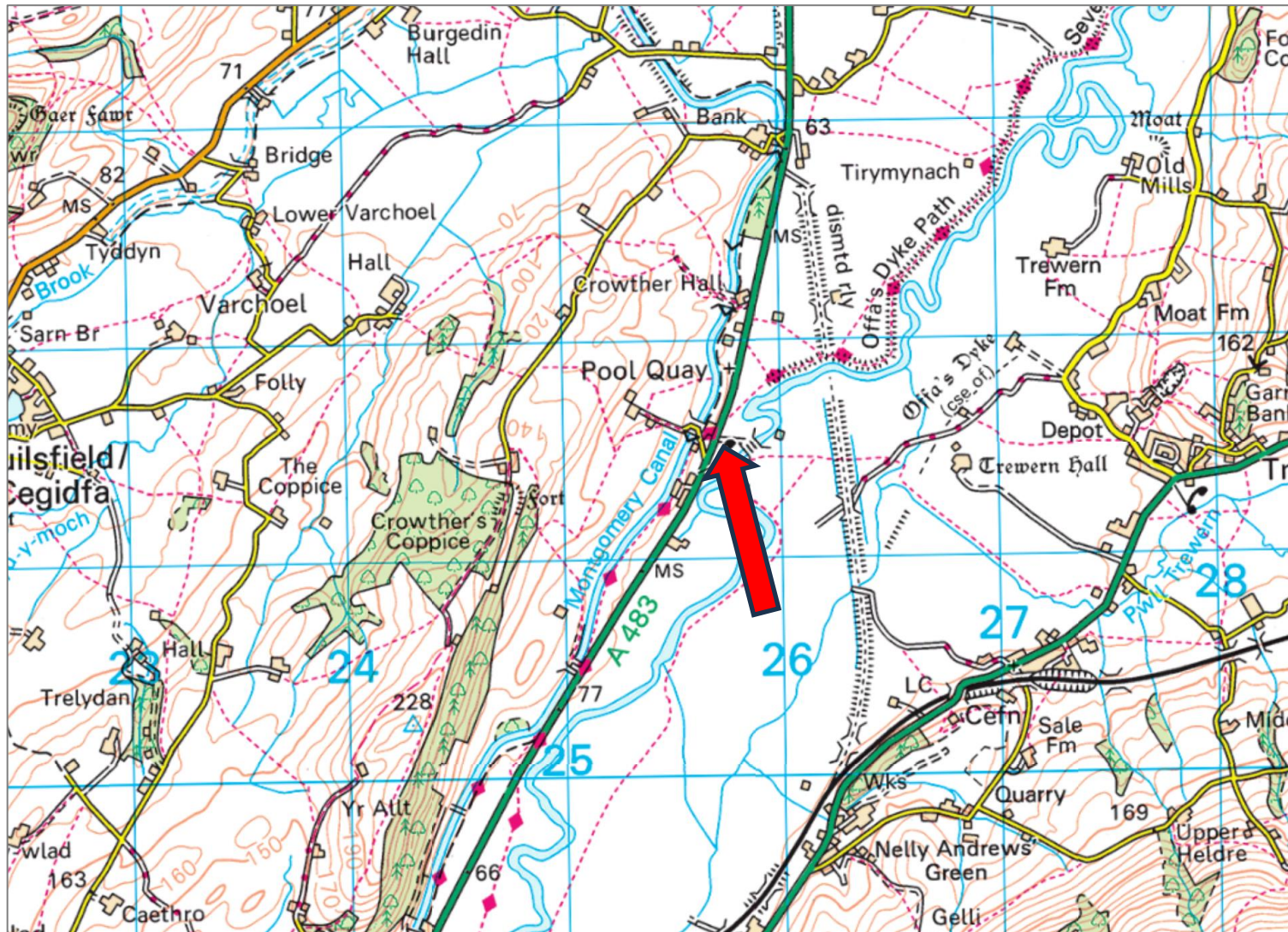


FIGURE 2 AERIAL PHOTOGRAPH



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FIGURE 3 PROPOSED SITE PLANS (FOR ILLUSTRATIVE PURPOSES ONLY)

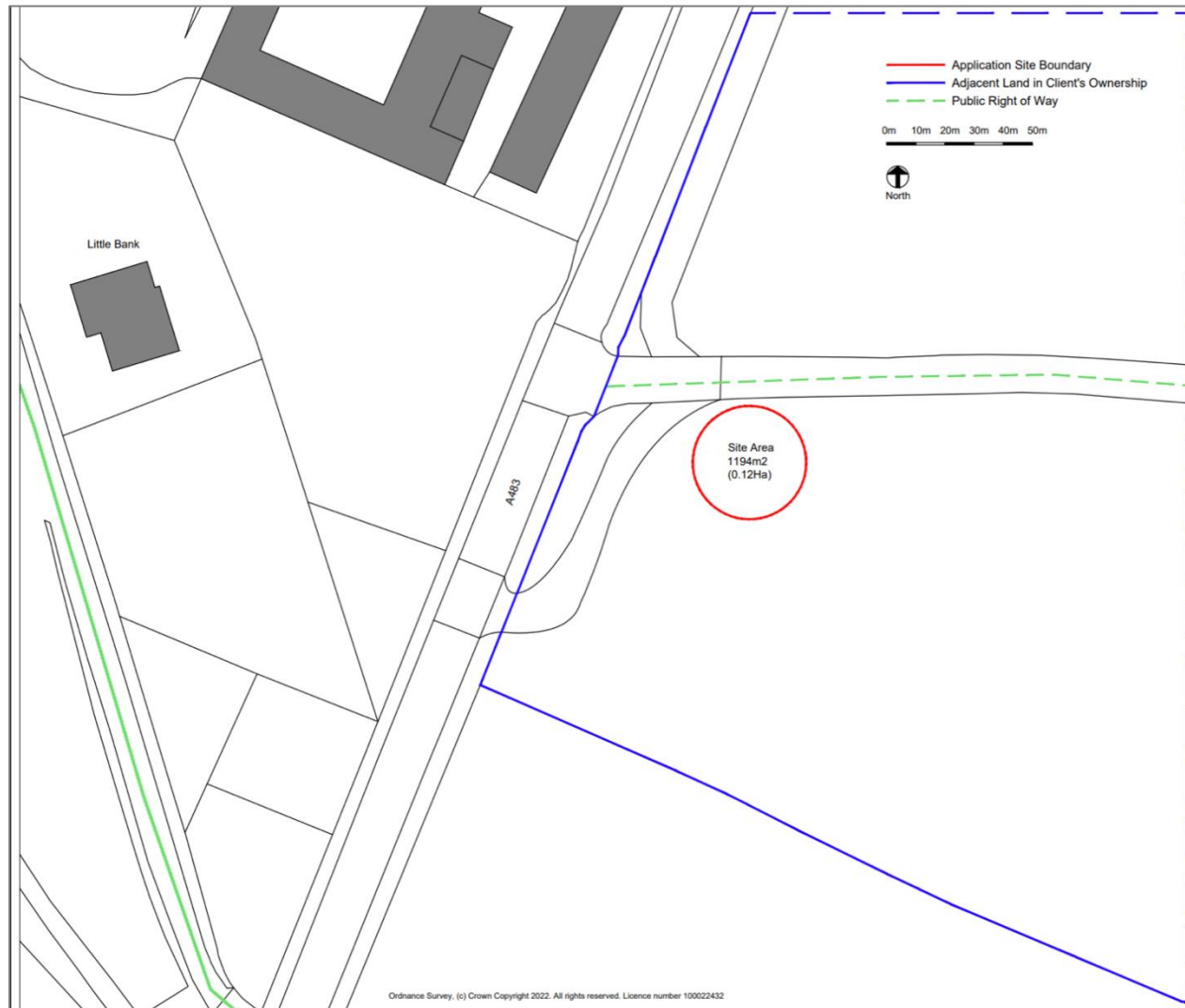
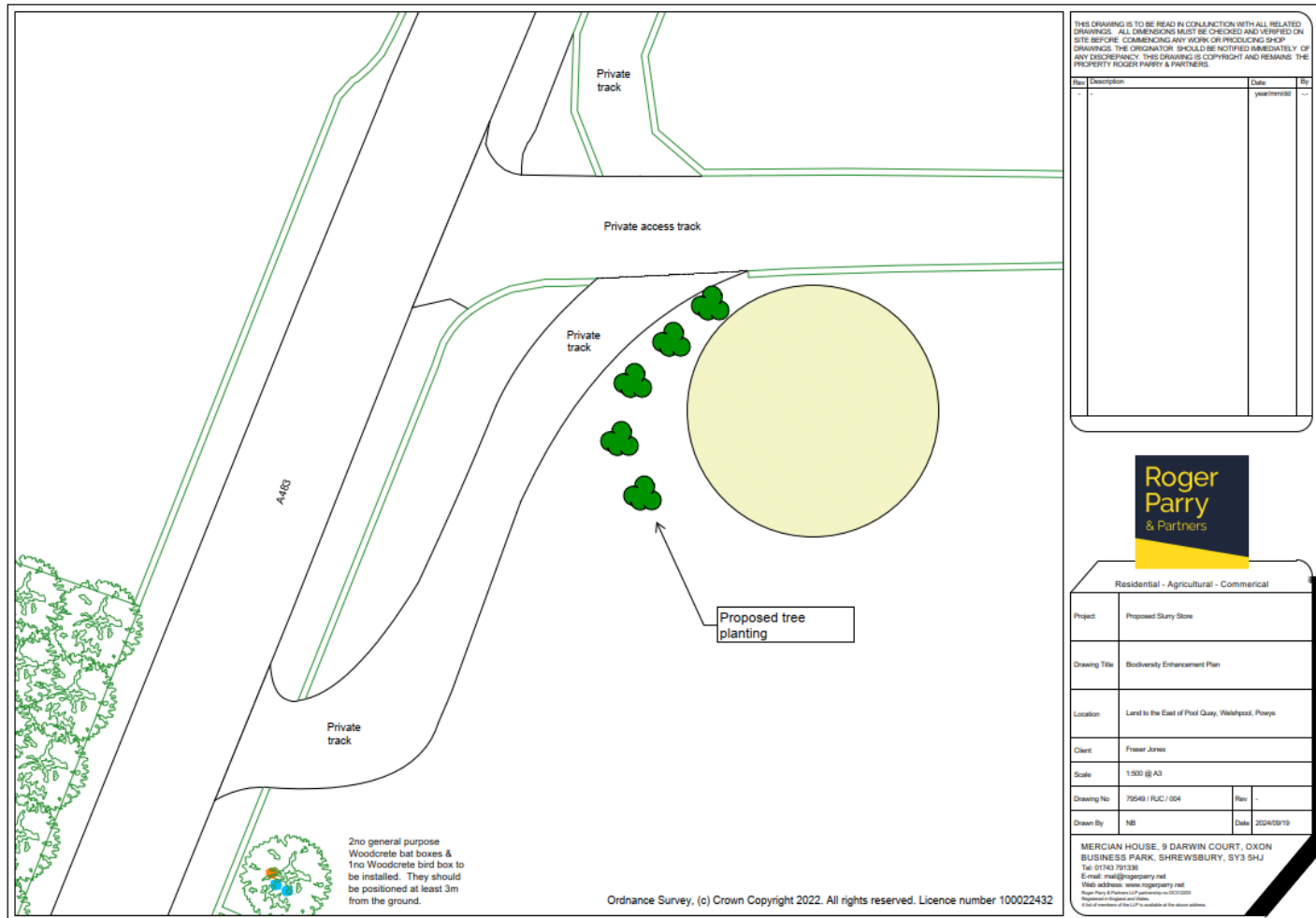


FIGURE 4 PROPOSED ENHANCEMENT MEASURES



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APPENDIX 1 PHOTOGRAPHS



Existing access and layby to the west of the site.



Modified grassland field.



Modified grassland and adjacent hedgerow.



Public right of way path and hedgerow.



Modified grassland field (taken from the east).



River Sever to the east of the site.





Bridge that runs over the river severn.



Banks of the river.



Fresh otter spraint found under the bridge.



Under the bridge.

