



Brighter strategies
for greener projects



Client: Bellway Homes

Project: Brookleigh Green Circle

Report: Ecological Mitigation Strategy

QUALITY ASSURANCE

Issue/Revision	Draft	Final	Final
Date:	June 2024	October 2024	January 2025
Comments:		Updated following elevated inspection of tree TN1	Updated to include additional southern section
Prepared by:	Paul White	Paul White	Paul White
Authorised by:	Mike Harris	Mike Harris	Mike Harris
File Reference:	552762pwJun24DV01	552762pw16Oct24FV01	552762pw16Jan25FV04

CONTENTS

1.0	EXECUTIVE SUMMARY	5
2.0	INTRODUCTION	6
2.1	BACKGROUND	6
2.2	AIMS AND OBJECTIVES	6
2.3	SITE DESCRIPTION AND ECOLOGICAL BACKGROUND	6
2.4	COMPETENCIES	9
3.0	ASSESSMENT OF IMPACTS	10
4.0	MITIGATION STRATEGY	16
4.1	REASONABLE AVOIDANCE MEASURES (DORMOUSE AND GREAT CRESTED NEWT)	16
4.2	BAT PROTECTION MEASURES	17
4.3	NESTING BIRD PROTECTION MEASURES	18
4.4	ANCIENT WOODLAND PROTECTION MEASURES	18
4.5	LIKELY ACTIONS IF A PROTECTED SPECIES IS ENCOUNTERED	18
5.0	COMPENSATION AND ENHANCEMENT	21
6.0	CONCLUSIONS	22
APPENDIX A SITE PLAN AND HABITATS		
APPENDIX B DORMOUSE SURVEY RESULTS		
APPENDIX C PONDS MAP		
APPENDIX D LEGISLATION		
APPENDIX E PHOTOGRAPHS		
APPENDIX F ANCIENT WOODLAND MAP		
REFERENCES		

1.0 EXECUTIVE SUMMARY

Greengage Environmental Ltd was commissioned by Bellway Homes to prepare an Ecological Mitigation Strategy for the Proposed Green Link footpath and cycle path associated with the wider Brookleigh (formerly Northern Arc) residential development in Burgess Hill, West Sussex.

This strategy has been prepared in response to the results from a suite of ecology surveys of the site and wider area, and provides appropriate mitigation measures for the ecological receptors identified.

The ecological receptors are:

- Hazel dormouse,
- Great crested newt,
- Bats,
- Nesting birds,
- Deciduous woodland, and
- Ancient woodland.

Reasonable avoidance measures are provided to avoid negative impacts on these receptors, which should be adhered to in full.

Given the relative low impact of the proposals, obtaining licences from Natural England is considered disproportionate, and impacts can be fully mitigated through non-licensed precautionary methods of work and appropriate enhancements.

The successful implementation of the reasonable avoidance measures and habitat enhancements detailed in this report would enable the proposed development to proceed lawfully and will ensure that the favourable conservation status of protected species (hazel dormouse, great crested newt and bats), and other wildlife is maintained, and that the nearby ancient woodland will not be negatively impacted.

2.0 INTRODUCTION

2.1 BACKGROUND

Greengage Environmental Ltd was commissioned by Bellway Homes Limited (South London) to prepare an Ecological Mitigation Strategy for the Proposed Green Link footpath and cycle path associated with the wider Brookleigh (formerly Northern Arc) residential development in Burgess Hill, West Sussex.

2.2 AIMS AND OBJECTIVES

This mitigation strategy has been produced to ensure that all ecological receptors are protected during construction of the new path, through precautionary methods of works, and appropriate timings, and is informed by a range of ecological surveys as detailed below.

2.3 SITE DESCRIPTION AND ECOLOGICAL BACKGROUND

Site Description

The site comprises the route of the proposed path, as shown in the figures in Appendix A.

A footpath is already present along the route, which varies in width from approximately 0.5m to over 3m. The majority of the footpath is bare ground, however the southern section and the area close to the footbridge are surfaced with crushed stone.

The footpath runs from the Freeks Lane / Eastbridge Avenue junction in the south, extending north and then west into the Brookleigh Residential development area.

The majority of the northern section of the existing path runs through the edge of a woodland. Vegetation at the path edges comprises patches of ruderal vegetation such as common nettle (*Urtica dioica*) and wild garlic (*Allium ursinum*), narrow strips of rough grassland, and sections of scrub such as holly (*Ilex aquifolium*), hazel (*Corylus avellana*) and blackthorn (*Prunus spinosa*), as depicted in Appendix A. The path crosses the River Adur via a footbridge.

The existing mud path is subject to regular flooding during periods of rain.

Much of the route is priority habitat deciduous woodland.

The southern sections (Sections 7 and 8) are predominantly existing crushed stone path, with grass and scrub at the edges.

Ecological Receptors

The following potential ecological receptors have been identified as being potentially affected by the works (in the absence of mitigation):

- Hazel dormouse (*Muscardinus avellanarius*)

- Great crested newt (*Triturus cristatus*)
- Bats
- Nesting birds
- Riparian mammals
- Deciduous woodland
- Ancient woodland

Site Proposals

The site proposals involve widening the existing path (where necessary) to 3m along the majority of the route (2m in certain areas), and surfacing with a crushed stone aggregate, to create an unsealed, free-draining cycle / footpath.

Ecology Surveys

A suite of ecology surveys has been undertaken to inform this proposed development and the wider Brookleigh (formerly Northern Arc) masterplan.

Surveys of relevance to this mitigation strategy include:

Hazel dormouse

The site has been subject to previous dormouse surveys as follows. These surveys employed standard 'nest tube' techniques, checking regularly until a minimum score of 20 was reached in the 'Index of Probability', in accordance with the Dormouse Conservation Handbook¹.

- Aecom (2019) surveys recorded evidence of dormouse in four locations across the wider masterplan area, including a nest in the hedgerow along Freek's Lane, close to the proposed development, and evidence of breeding in the woodland to the east. 729 tubes and 50 boxes were installed. Report reference Northern Arc ES Addendum, Appendix 6-11.
- Greengage (2021) - hazel dormouse nests were recorded in four locations across the 'Phase 1B' area, including a single nest along Freek's Lane. No animals themselves were recorded. 143 tubes installed. Report reference 551594jc13Sep21FV01_EcIA.
- Greengage (2023) - hazel dormouse nests were recorded in two locations across the 'Phase 1B' area. None were recorded along Freek's Lane, with the closest approximately 240m north of the proposed development. No animals themselves were recorded. 128 tubes installed. Report reference 551594pw01Feb24FV01_DM.

Locations of dormouse records are provided in Appendix B.

Great crested newt

Greengage surveyed the wider area as part of the wider Brookleigh scheme in 2021 (report ref: Greengage, '551594jc13Sep21FV01_EcIA') and 2023 (results summarised below). This included

Habitat Suitability Index (HSI) and environmental DNA (eDNA) surveys of nine ponds, including the closest ponds to the proposed Green Circle route.

The ponds were subject to environmental DNA (eDNA) testing in 2021 and 2023, and the ponds which returned a positive eDNA result were subject to six population size class surveys (combining egg searches, torching, bottle trapping and netting).

The results of these surveys (for all ponds within 250m of the proposed route) are provided in Table 2.1. Pond numbers and locations are depicted in Appendix C. Pond numbers are not consecutive as they follow the numbering of the 2021 and 2023 surveys.

Table 2.1 Great Crested Newt Survey Results

Pond no.	Approx distance from Green Circle path (m)	2021 eDNA result	2023 eDNA result	2023 population size class estimate
1	12	Negative	Positive	No GCN recorded
2	190	Negative	Negative	N/A - negative eDNA
3	160	Negative	Negative	N/A - negative eDNA
7	110	Positive	Positive	No access
8	180	Negative	Negative	N/A - negative eDNA

Positive eDNA results were returned in 2023 for ponds 1 and 7. However, these results were at very low levels (at 1 positive replicate out of 12). The two other ponds within 250m returned negative eDNA results. The 2021 eDNA results returned a positive result from pond 7 only (3 replicates out of 12).

The 2023 population size survey of pond 1 recorded no evidence of great crested newts across the six surveys. The pond was also observed to be dry in the summer months. This pond returned a negative eDNA result in 2021. The eDNA result of pond 1 is therefore considered either an anomalous result, or indicative of transient newts, and pond 1 is not considered a great crested newt breeding pond.

Pond 7 returned positive eDNA results, albeit at low replicate levels, indicating low numbers of the species. Access to this pond was not possible to conduct full population size class estimate surveys, therefore as a precaution, this pond is assumed to be a great crested newt breeding pond. The pond is, however over 100m from the proposed development at its closest point.

Site Walkover

To inform this method statement, the full length of the proposed development was subject to a walkover survey by Greengage Associate Ecologist Paul White on 24th April 2024. The broad habitat types were mapped and any ecological constraints / potential ecological receptors noted, as detailed in Section 3 below. A map of the site is provided in Appendix A.

An additional walkover was conducted on 20th December 2024 to survey the additional southern sections (Sections 7 and 8).

2.4 COMPETENCIES

Paul White, who undertook the site walkover, 2023 dormouse surveys and prepared this method statement, has a Bachelor's degree in Marine Biology (BSc Hons), a Natural England Great Crested Newt Licence and Dormouse Licence, and is an Associate member of CIEEM. Paul has over 16 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.

Mike Harris, who reviewed this document, has a Bachelor's degree in Environmental Biology (BSc Hons), a Natural England Great Crested Newt Licence and Dormouse Licence, is a Chartered Environmentalist (CEnv) and Full member of CIEEM. Mike has over 20 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.

This document was prepared by Paul White and reviewed and verified by Mike Harris who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

3.0 ASSESSMENT OF IMPACTS

The section below assesses potential impacts, in the absence of mitigation, to identify the areas requiring inclusion in the mitigation strategy in Section 4.

It should be noted that some measures are inherent in the path design to minimise ecological impacts, such as:

- Use of a permeable, free-draining aggregate
- Minimising the amount of soil removal
- Limiting the path to 3m wide, reduced to 2m where appropriate to minimise the amount of scrub clearance required.

An assessment of each identified ecological receptor is provided below.

Hazel Dormouse

The proposed development requires clearance of small areas of suitable dormouse habitat in the form of scrub (~120m²), the vast majority of which involves trimming back branches on either side of the footpath, with only occasional individual scrub plants requiring removal in their entirety. Minimising scrub clearance has been a consideration on the path design, with the path narrowed to 2m in places to limit the amount of clearance required. The areas requiring removal are mapped in Appendix A.

This will not result in fragmentation or isolation of habitat, and a connected tree canopy will remain above the path, meaning that dormice will still be able to move freely throughout the landscape.

However, as dormice are a legally protected species (see context in Appendix D), consideration to the species will be required.

Under current legislation, a breach of legislation would occur if any of the below actions occur:

- deliberately capture, injure or kill hazel dormice
- damage or destroy a dormouse resting place or breeding site
- deliberately or recklessly disturb a hazel dormouse while it's in a structure or place of shelter or protection
- block access to structures or places of shelter or protection
- possess, sell, control or transport live or dead hazel dormice, or parts of hazel dormice.

Although no dormouse nests were recorded along the route itself in the 2023 surveys, historical records and results from connected habitats suggest that dormouse presence cannot be ruled out. The proposed development will not result in blocking access to structures or places of shelter or protection, however in the absence of mitigation, a small risk remains of damage or destruction of a nest or a dormouse itself. Precautionary mitigation measures will therefore be required.

Given the minimal scale of impact on habitats, and the ease with which the habitats can be checked, working under a Natural England Licence is considered disproportionate.

Working under a mitigation strategy, using reasonable avoidance measures, is therefore recommended to ensure that no dormice or their nests are harmed during works. Details are provided in Section 4 below.

Great Crested Newt

The proposed development requires clearance of small areas of rough grassland, ruderal vegetation and scrub on either side of the existing footpath. The areas concerned are small (estimated as ~470m² of ruderal vegetation, ~120m² of scrub and ~250m² of grassland). The closest great crested newt breeding pond is over 100m from the proposed development.

The predicted development effect and scale of impact has been assessed with reference to the English Nature Great Crested Newt Mitigation Guidelines (2001)² and current Natural England guidance³.

- No great crested newt breeding ponds will be lost or damaged as a consequence of the proposed development.
- No other ponds will be affected by the proposed development.
- The proposed development will not increase (from current and historic levels) the risk of post-development human interference impacts on any great crested newt population in the wider area.
- No isolation or fragmentation of terrestrial habitat or ponds will occur.

It is considered that the proposed development will result in low-scale minor impacts, as noted in Table 3.1 (green highlights), and when considering the small areas concerned and the minor scale of the impacts, overall the predicted scale of negative impact on great crested newt (in the absence of any mitigation measures) can be reliably categorised as 'Low'.

Table 3.1 Summarising the scale of main impacts at the site level (from English Nature 2001)

Habitat Feature	Development effect	Scale of impact		
		Low	Medium	High
Breeding pond	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction; modification		✓	
	Temporary disturbance	✓		
	Post-development interference			✓
Other pond used by great crested newts	Destruction		✓	
	Isolation caused by fragmentation		✓	
	Partial destruction; modification	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
Immediate	Destruction			✓

Habitat Feature	Development effect	Scale of impact		
		Low	Medium	High
terrestrial habitat (approx <50m from breeding pond)	Isolation caused by fragmentation			✓
	Partial destruction		✓	
	Modified management, resurfacing, etc		✓	
	Temporary disturbance	✓		
	Post-development interference		✓	
	Temporary destruction, then reinstatement	✓		
Intermediate terrestrial habitat (approx 50–250m from breeding pond)	Destruction		✓	
	Isolation caused by fragmentation		✓	
	Partial destruction	✓		
	Modified management, resurfacing, etc	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction, then reinstatement	✓		
Distant terrestrial habitat (approx >250m from breeding pond)	Destruction	✓		
	Isolation caused by fragmentation	✓		
	Partial destruction	✓		
	Modified management, resurfacing, etc	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction, then reinstatement	✓		

Furthermore, when the habitat areas are input into Natural England's 'Rapid Risk Assessment Tool'⁴, the assessment result is 'Green: Offence Highly Unlikely', as shown in Table 3.2.

Table 3.2 Natural England Great Crested Newt Rapid Risk Assessment Tool

Component	Likely effect	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0.0
Land within 100m of any breeding pond(s)	No effect	0.0
Land 100-250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.01
Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001
Individual great crested newts	No effect	0.0

Component	Likely effect	Notional offence probability score
	Maximum:	0.01
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Based on the appraisal findings it has been concluded that great crested newts are not, in any way, reliant on the habitats that will be affected by the small-scale clearance.

Consequently, the construction of the path at the site is considered highly unlikely to result in a breach of current wildlife legislation relating to the species and will not have a significant negative impact on the conservation status of the great crested newt meta-population across the wider landscape.

However, there remains a possibility (albeit slight) that the unmitigated commencement of development at the site could potentially adversely impact on individual great crested newts, in the unlikely event that they were to inadvertently stray into the working area following the commencement of clearance and development works.

Current Natural England Guidance³ states, "In recent years there has been a trend towards increasingly precautionary applications, resulting from a risk-averse approach to mitigation. Whilst considering potential risks to great crested newts is laudable, many recent mitigation schemes were designed for developments that actually had very little or no effect on the newt population. In part this is because it can be difficult to assess whether newts will be affected by certain activities, especially when they take place at some distance from breeding ponds. Newts tend to be present at increasingly low density the further one looks from ponds, and the task of detecting and capturing them becomes more problematic. Further from ponds, there is a corresponding reduction in the scale of impact on populations. Given that great crested newts can disperse over 1km from breeding ponds, the potential for offences may seem vast, yet the probability of an offence outside the core breeding and resting area is often rather small, and even if an offence takes place, the effect on the population may be negligible.

Natural England is concerned about the trend for increasingly risk-averse mitigation for several reasons. Primarily, there is no legal need, and little benefit to great crested newt conservation, in undertaking mitigation where there are no offences through development. Even where there technically is an offence, such as the destruction of a small, distant area of resting place habitat, it is arguable that impacts beyond the core area often have little or no tangible impact on the viability of populations. Mitigation in such circumstances is of questionable value in conservation terms. There are, however, substantial costs: developers delay projects and spend large sums on mitigation. Sometimes the mitigation project itself has environmental costs, especially when it entails substantial lengths of newt fencing. In some cases long newt fences are employed with no justification. Natural England wishes to see newt fencing used more appropriately, i.e. only where there is a reasonable risk of capturing, containing and/or excluding newts.

Natural England recognises that the two key factors leading consultants to adopt this risk-averse approach are: (a) uncertainty over the presence of newts and whether there will be an offence in areas distant from ponds; (b) undertaking mitigation under licence "just in case", so that there is no perceived risk of litigation for their client. Natural England wishes to see mitigation planning shift away from such a highly risk-averse

starting point. The domestic legislation protecting great crested newts arises largely from the Habitats Directive, which has a central aim to restore scheduled species to a favourable conservation status. A more proportionate approach to mitigation, addressing tangible impacts on populations whilst giving lower priority to negligible effects, is consistent with the aims of the Directive.

This simple risk assessment can inform the decision as to whether to apply for a licence. It remains the responsibility of the developer - normally acting through their consultant - to decide whether to apply. Early consideration of options can often result in no licence being required."

Following careful consideration of the appraisal findings, the above guidance, and given the relatively limited scale of the proposed development, the predicted low development impacts, the legal protection afforded to the species and current guidance issued by Natural England in respect of low impact developments, it is concluded that a licence is not required in this instance. The implementation of non-licensed great crested newt Reasonable Avoidance Measures and habitat enhancement are proportionate to the nature and scale of the development, and the associated risks.

These measures are provided in Section 4.0 below.

Bats

The proposed development will not result in loss or fragmentation of foraging and commuting habitats (e.g. woodland edges), and no lighting is proposed, therefore impacts on foraging bats are predicted to be negligible.

All trees are to be retained, however five trees with potential roosting features (PRF) were noted close to or within the proposed development area, as noted below. These are marked on the maps in Appendix A as TN1, TN2, TN3, TN4 and TN5. Photographs of the features are provided in Appendix E.

- TN1. An overhanging hazel branch with a tear-out wound that forms a PRF. This is in a position that is likely to require removal.
- TN2. An overhanging oak branch with a PRF at a height of ~4m. This is at a sufficient height that the branch can be retained, therefore the feature will not be disturbed.
- TN3. An overhanging hazel branch with a large split forming a PRF. This is likely to require removal for safety reasons.
- TN4. An ash tree with a large split in the trunk to the west of the path.
- TN5. A hazel to the west of the path, south of the footbridge, that partially overhangs the path. A split was noted in the branch, close to the trunk, forming a PRF, but in a position that should allow retention.

As some of the above are likely to be impacted by the works, mitigation measures are provided in section 4 below.

Nesting Birds

The scrub and woodland provide suitable habitat for nesting birds, which could be disturbed in the absence of mitigation.

Riparian Mammals

A new bridge is proposed across the River Adur. However previous surveys for water vole and otter (Aecom, 2019), concluded likely absence of these species, and furthermore, the bridge design involves minimal impact to the river bank, with only minimal vegetation clearance required to allow the upright posts to be installed. Vegetation on the bank can be left undisturbed.

Therefore, impacts on water vole and otter are considered negligible and are not considered further in this document.

Deciduous Woodland

The majority of the proposed route runs through deciduous woodland. However it follows the route of an existing path, and no trees are to be removed. Impacts are restricted to occasional tree pruning and small-scale scrub clearance, as described above. Trees will be protected in accordance with the associated Arboricultural Method Statement (Keen Consultants, January 2025), therefore impacts on the woodland can be fully mitigated.

The Arboricultural Method Statement should be consulted in conjunction with this document to inform protection measures during works.

Ancient Woodland

Natural England recommend a buffer zone of at least 15 metres from the boundary of ancient woodland to avoid root damage (known as the root protection area)⁵.

No works are to take place within ancient woodland, however the path does lie within 15m of the ancient woodland, as shown in Appendix F.

Therefore, although works are low-impact, measures are provided to protect the ancient woodland in the areas that fall within 15m (see Section 4 below).

It was also noted during the walkover survey that due to flooding / heavy mud on the current path, desire paths have been created by users to avoid the wet areas - these take path users into the ancient woodland, impacting it through increased footfall. Resurfacing the path in a manner that avoids flooding will encourage users of the path to stick to the designated route, which will have a positive impact on the woodland.

4.0 MITIGATION STRATEGY

4.1 REASONABLE AVOIDANCE MEASURES (DORMOUSE AND GREAT CRESTED NEWT)

Prior to commencing development at the site, a suitably experienced dormouse & great crested newt licensed consultant ecologist (or accredited agent of the licence) will be appointed by the developer to ensure that the measures are successfully implemented.

The measures will be implemented as deemed appropriate by the appointed ecologist. A copy of this report and supporting materials including great crested newt/amphibian identification sheets and 'on call' ecologist contact details will be kept on-site and available for inspection during development related works at the site.

The measures below are designed to ensure that site clearance and path construction works are undertaken in a manner that minimises the risk of harm to the ecological receptors to negligible levels.

- Prior to any development related works commencing at the site the developer/contractors will undergo a site induction/toolbox talk where the implications arising from the potential presence of great crested newts and dormice within the local area and the need to implement the method statement detailed in this report should be fully explained by the appointed ecologist.
- Prior to any vegetation clearance and/or ground disturbance works commencing at the site, the extent of works should be agreed by the appointed ecologist and the developer/contractors.
- Vegetation clearance will be undertaken in a slow, controlled manner as follows:
 - Above-ground scrub will be cleared first. Prior to clearance, the appointed ecologist will check the area to be cleared for any signs of dormouse nests (and nesting birds if in the nesting bird season - see Section 4.3 below). If evidence of either of these is found, the appointed ecologist will advise on an appropriate manner in which to proceed. The ecologist will determine this, however general actions that are likely to be required if any protected species is encountered are provided in Section 4.5 below.
 - Once the ecologist has confirmed that active bird or dormouse nests are not present, the scrub will be cut back using hand-held tools only (e.g. chainsaws, brush cutters). The vegetation will be cut to approximately 150mm above ground. The appointed ecologist will supervise the vegetation cut.
 - All arisings will be removed from site (with the exception of the material used to create enhancements - see Section 6 below).
 - Once the scrub has been cleared to 150mm above ground level, the ground flora (predominantly ruderal vegetation and rough grass) can be cleared. Prior to clearance, the appointed ecologist will check the area again for any signs of great crested newts or other wildlife (e.g. other amphibians). If evidence is found, the appointed ecologist will advise on an appropriate manner in which to proceed. The ecologist will determine this, however general

actions that are likely to be required if any protected species is encountered are provided in Section 4.5 below. All arisings will be removed from site.

- Once all vegetation has been removed from the proposed path route, the soil will be scraped using an excavator. Excavated soil will be removed from site. The excavation will be supervised by the ecologist.
- The excavated route will then be backfilled with the aggregate surfacing material. To minimise risk of harming great crested newts and other wildlife, the work will be undertaken in sections, and each section to be surfaced will be thoroughly checked for wildlife prior to filling.
- Where timber edging is required, care will be taken through appropriate backfilling on the outside edge of the path, to ensure that no vertical finishes occur, thereby ensuring free movement of great crested newts and other wildlife.

In some developments amphibian fencing is used to exclude great crested newts from sites to prevent them entering. Such fencing is not considered appropriate for this development. Installing fencing along the route would create a long barrier that would prevent newts dispersing between ponds across the wider landscape, and is contrary to the Natural England guidance above. Amphibian fencing will therefore not be used for this development.

Although reptiles are not considered a potential ecological receptor at this site, due to the limited extent and heavy shading of habitats, the above measures would also serve to protect reptiles, in the unlikely extent that any are present.

4.2 BAT PROTECTION MEASURES

As noted in Section 3 above, five trees with PRFs were noted along the route. Mitigation measures are provided below for each.

- TN1. It was unclear from a ground-level inspection how far into the branch the PRF extends. As a result, the tree was subject to an elevated endoscopic inspection on 13th September 2024. The PRF was noted from detailed inspection to be a callus roll that formed a small feature likely to be only used by individual numbers of bats, with no evidence of bats observed at the time of survey. The PRF would be therefore classified as PRF-I. The branch can therefore be removed by soft-felling. Prior to soft-felling, the feature should either be inspected by a licensed ecologist from height or each section carefully lowered to the ground where the ecologist can inspect any features for bats or signs of bats. If a bat is identified in a section of a felled tree, that section should be propped up against the tree, as close as possible to where the roost was identified, and the bat allowed to leave on its own accord. A record should be taken of any bat roosts identified during the works. Any remaining sections that are unable to be fully inspected should be left with the PRFs facing upwards overnight in case any bats remain inside.
- TN2. The overhanging oak branch should be left in situ, as it is high enough not to require removal. This will ensure that the feature is retained.

- TN3. This branch provides a low suitability feature likely to be used by individual or small numbers of bats (if any). The branch can therefore be removed by soft-felling (method as above).
- TN4. The higher canopy of the ash can be reduced if necessary, but the split feature in the trunk should be left undisturbed.
- TN5. The overhanging branch can be cut back, but if possible the split feature near the trunk should be retained. If this is not possible, it should be soft-felled using the process noted above.

4.3 NESTING BIRD PROTECTION MEASURES

Where clearance of scrub / branch pruning occurs within the bird nesting season (usually taken to run from March to August inclusive), this will be preceded by a thorough search for nesting birds by the appointed ecologist.

Should an active nest be discovered, an appropriate buffer will be put in place within no works can take place until the chicks have fledged or the nest is otherwise classed by the ecologist as being no longer active.

4.4 ANCIENT WOODLAND PROTECTION MEASURES

As noted above, areas of the proposed path that fall within 15m of the ancient woodland will be subject to a 'no-dig' construction method. Full details are provided within the associated Arboricultural Method Statement (Keen Consultants, document ref 2301-KC-XX-YTREE-MethodStatement-RevC).

The proposed development is a 3m wide strip of land. To avoid impacting the areas immediately beyond the site, only narrow machinery will be used, which must stick to the designated route at all times.

4.5 LIKELY ACTIONS IF A PROTECTED SPECIES IS ENCOUNTERED

The advice below details measures that may be required in the event that a protected species (or other wildlife) is encountered during the vegetation clearance, site preparation and path / bridge construction works. The appointed ecologist will determine the precise nature of any actions required.

Discovery of Hazel Dormouse / Dormouse Nest

If any hazel dormouse or dormice nests are discovered during the works, either by the ecologist or the site team, the following steps will be undertaken:

- Works at the site will immediately cease and the ecologist consulted;
- An exclusion zone will be set up by the ecologist and site personnel will be informed;
- The exclusion zone will create a minimum of a 10m buffer around the nest or dormouse;
- A European Protected Species Mitigation (EPSM) Licence may need to be sought from Natural England, as advised by the ecologist;

- Individual dormice will be allowed to disperse of their own accord and should not be approached; and
- If an EPSM licence is required, once it has been approved by Natural England, vegetation clearance works will be allowed to continue under the conditions of the licence.

Discovery of a Great Crested Newt

If any individual newts are discovered during the works, either by the ecologist or by the site team, then the following steps will be taken:

- Work will immediately cease at the site and the ecologist consulted;
- The animal should be allowed to disperse on its own accord or moved safely clear of the works area;
- If the animal is allowed to disperse on its own accord, a temporary exclusion zone will be set up by the ecologist and site personnel will be informed;
- If possible, the animal will be hidden / covered up, ensuring safety from predation and protection from the weather; and
- Once the animal is safely clear of the work area, works may resume.
- To safeguard a discovered hibernating or torpid newt, the ecologist will assess its activity level (active or torpid), the weather conditions (i.e., temperature) and the habitat in which it was discovered.
- Only if the life of the individual(s) is at risk, should the newt be moved to a suitable safe place by the ecologist;
- If refugia is destroyed, the animal can be moved to suitable refugia outside of the works area;
- If the weather is below 5°C, the individual may have to be taken into captivity and released during suitable conditions; and
- The details and location of any animal found must be recorded. If relevant, details and location of the refugia should also be recorded, including photos.

Discovery of Breeding Birds / Birds Nest

If an active nest is identified by the ecologist or site team, the following will be undertaken:

- Works will cease and the ecologist consulted;
- A suitably sized exclusion zone (e.g. 3-5m, species dependent) will be implemented by the ecologist and the site team will be informed;
- No works are permitted to occur within the buffer until the young have fledged or the nest is no longer active; and
- The nest will be monitored by the site team and ecologist, once confirmed that the young have fledged or the nest is no longer active the nest can be dismantled, and works may continue.

-
- Under no circumstances shall the nest be approached or the nest, eggs or any birds occupying the nest be touched.
 - If a Schedule 1 species is observed nesting on site, a 30m buffer will be enacted whereby no mechanical tools or machinery is to be used to avoid disturbance.

5.0 COMPENSATION AND ENHANCEMENT

In order to compensate for the small loss of habitat and roosting / nesting opportunities, the following compensation and enhancement measures are proposed:

- Two log piles will be created within the adjacent woodland, close to Pond 1, to provide sheltering opportunities for great crested newts and other wildlife. These will be constructed from material retained from tree branch pruning within the site.
- Pond 1 will be enhanced through selective pruning of the surrounding trees to reduce shading of the pond, which will encourage growth of aquatic vegetation.
- Five bat boxes will be installed on mature trees along the route. To ensure long-term viability, 'Woodcrete' / 'Woodstone' or similar boxes should be used, such as those produced by Schwegler (the exact specification will depend on local availability at the time of purchase).
- Five bird boxes will be installed on mature trees along the route. To ensure long-term viability, 'Woodcrete' / 'Woodstone' or similar boxes should be used, such as those produced by Vivara (the exact specification will depend on local availability at the time of purchase). A mix of open-fronted and hole-fronted boxes will be used.
- Five dormouse nest boxes will be installed along the route, set back from the path to minimise disturbance.
- New scrub planting will be undertaken beside the path in towards the south of the site, as shown in Appendix A. This area currently contains bare ground wider than the required 3m (see Plate 5.1), therefore can be planted to thicken the vegetation. A variety of species of known value to dormice will be planted, including hazel, honeysuckle, hawthorn, and blackthorn.

Plate 5.1 Area to be replanted



6.0 CONCLUSIONS

Following careful consideration of the appraisal findings and given the relatively limited scale of the proposed development, the predicted low development impacts, the legal protection afforded to the species concerned, and current guidance issued by Natural England in respect of low impact developments, it is concluded appropriate to recommend the implementation of non-licensed Reasonable Avoidance Measures and habitat enhancement in respect of the proposed development.

The successful implementation of the Reasonable Avoidance Measures and habitat enhancements detailed in this report would enable the proposed development to proceed lawfully and will ensure that the favourable conservation status of protected species (hazel dormouse, great crested newt, and bats), and other wildlife is maintained, and that the nearby ancient woodland will not be negatively impacted.

APPENDIX A SITE PLAN AND HABITATS

Section 1



Project Title : Brookleigh Green Circle

Job Reference : 552762

Drawing Title : Figure A1 - Section 1

Date : 05/07/24

Status : Final

Scale : NTS

Drawn : PW

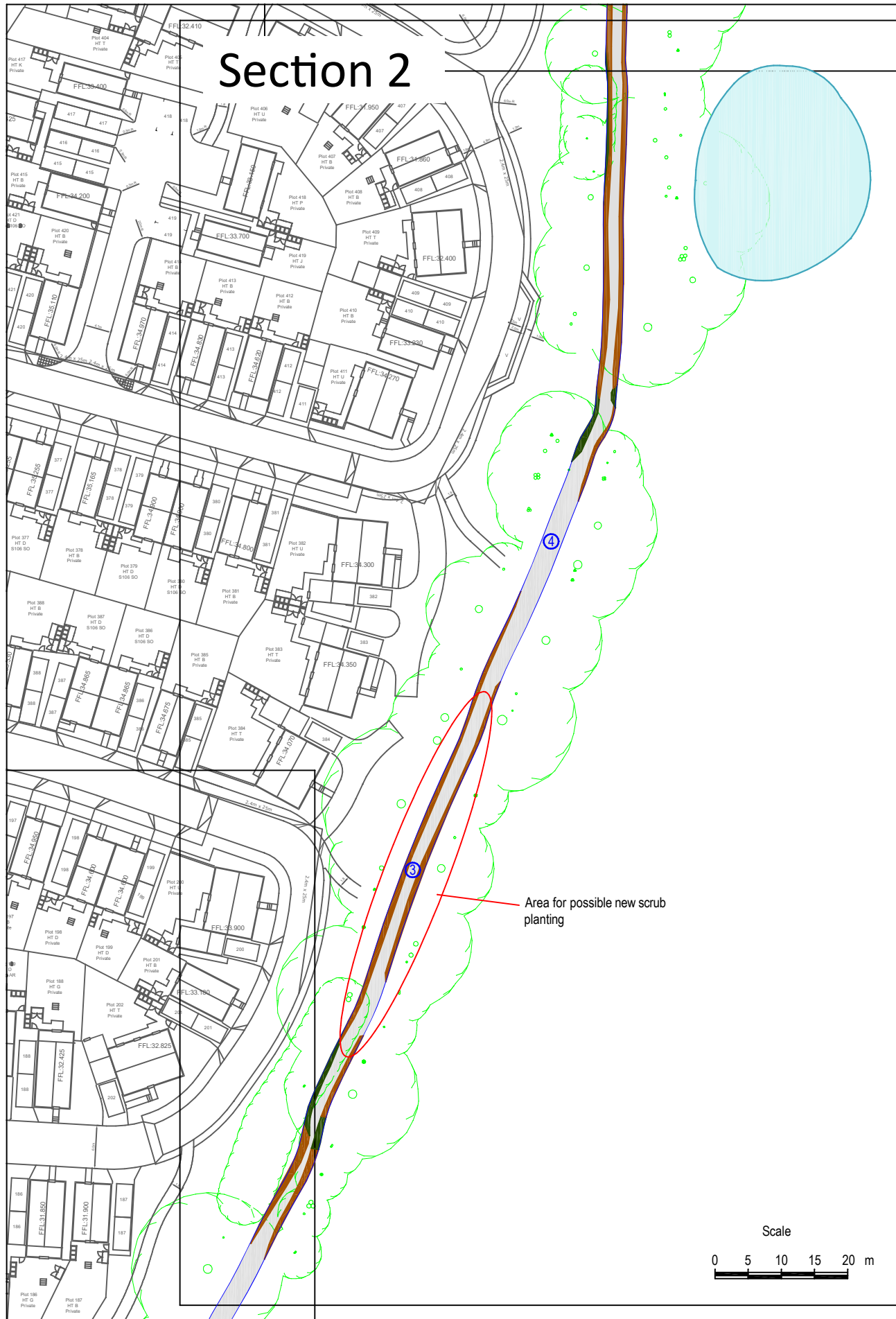
Checked: MH

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All measurements are for indicative purposes only.

- Path edge (site boundary)
- Ruderal vegetation
- Rough grassland
- Scrub
- Bare ground
- 'No-dig' zone
- Pond
- Photograph position
- Target note (tree PRFs)



Section 2



Project Title : Brookleigh Green Circle

Job Reference : 552762

Drawing Title : Figure A1 - Section 2

Date : 05/07/24

Status : Final

Scale : NTS

Drawn : PW

Checked: MH

Path edge (site boundary)

Ruderal vegetation

Rough grassland

Scrub

Bare ground

'No-dig' zone

Pond

Photograph position

Target note (tree PRFs)

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All measurements are for indicative purposes only.



Section 3

(Path width reduced to 2m for most of Section 3)

Path width reduced to 2m

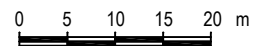
Passing space

Passing space

Passing space

Path width reduced to 2m

Scale



Project Title : Brookleigh Green Circle

Job Reference : 552762

Drawing Title : Figure A1 - Section 3

Date : 05/07/24

Status : Final

Scale : NTS

Drawn : PW

Checked: MH

Path edge (site boundary)

Ruderal vegetation

Rough grassland

Scrub

Bare ground

'No-dig' zone

Pond

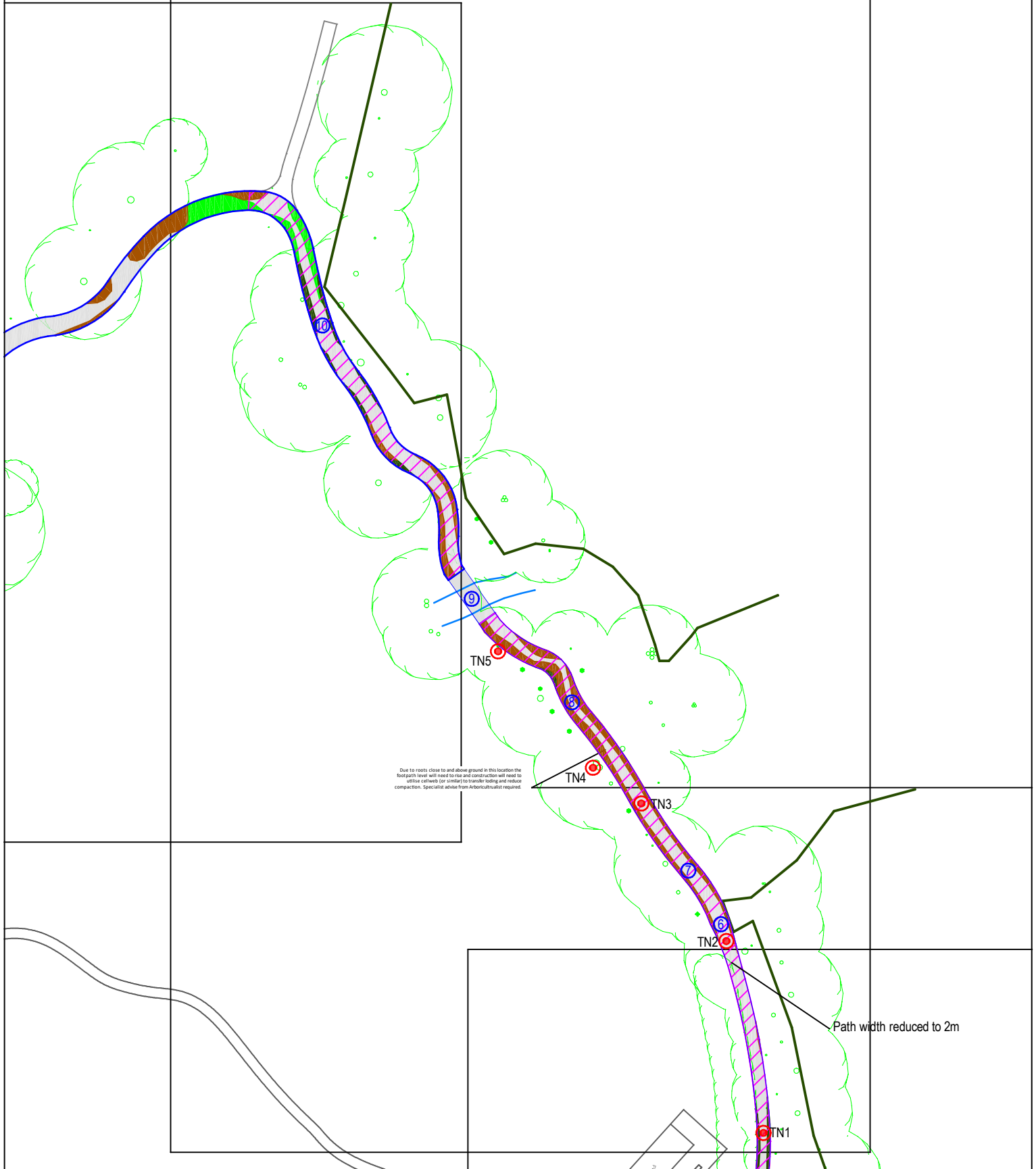
Photograph position

Target note (tree PRFs)

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All measurements are for indicative purposes only.



Section 4



Project Title : Brookleigh Green Circle

Job Reference : 552762

Drawing Title : Figure A1 - Section 4

Date : 05/07/24

Status : Final

Scale : NTS

Drawn : PW

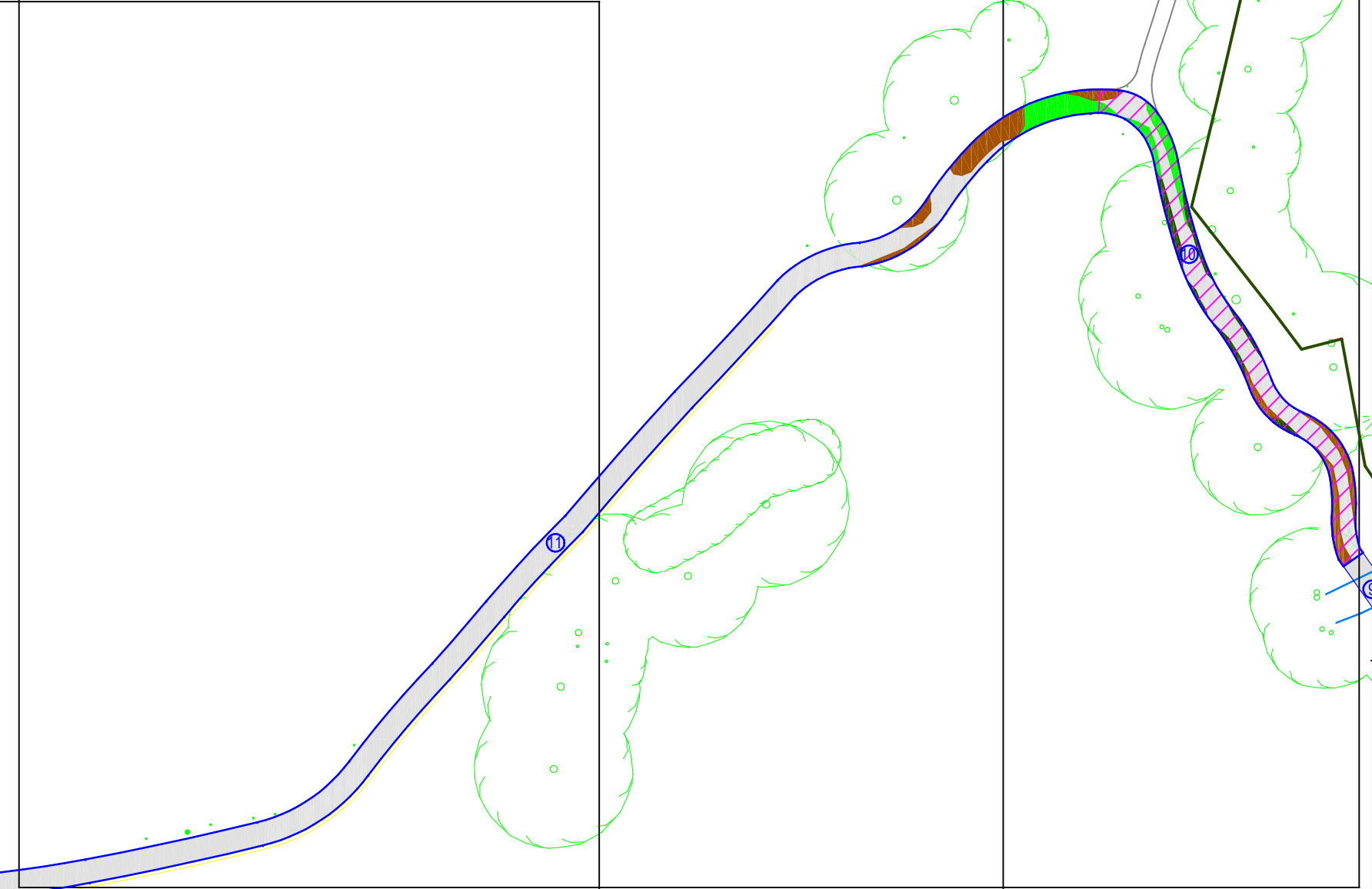
Checked: MH

- Path edge (site boundary)
- Ruderal vegetation
- Rough grassland
- Scrub
- Bare ground
- 'No-dig' zone
- Pond
- Photograph position
- Target note (tree PRFs)

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All measurements are for indicative purposes only.



Section 5



- Path edge (site boundary)
- Ruderal vegetation
- Rough grassland
- Scrub
- Bare ground
- 'No-dig' zone
- Photograph position



Project Title : Brookleigh Green Circle
Job Reference : 552762
Drawing Title : Figure A1 - Section 5
Date : 05/07/24
Drawn : PW

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All
measurements are for indicative purposes only.

Section 6

- Path edge (site boundary)
- Ruderal vegetation
- Rough grassland
- Scrub
- Bare ground
- 'No-dig' zone
- Photograph position



Project Title : Brookleigh Green Circle

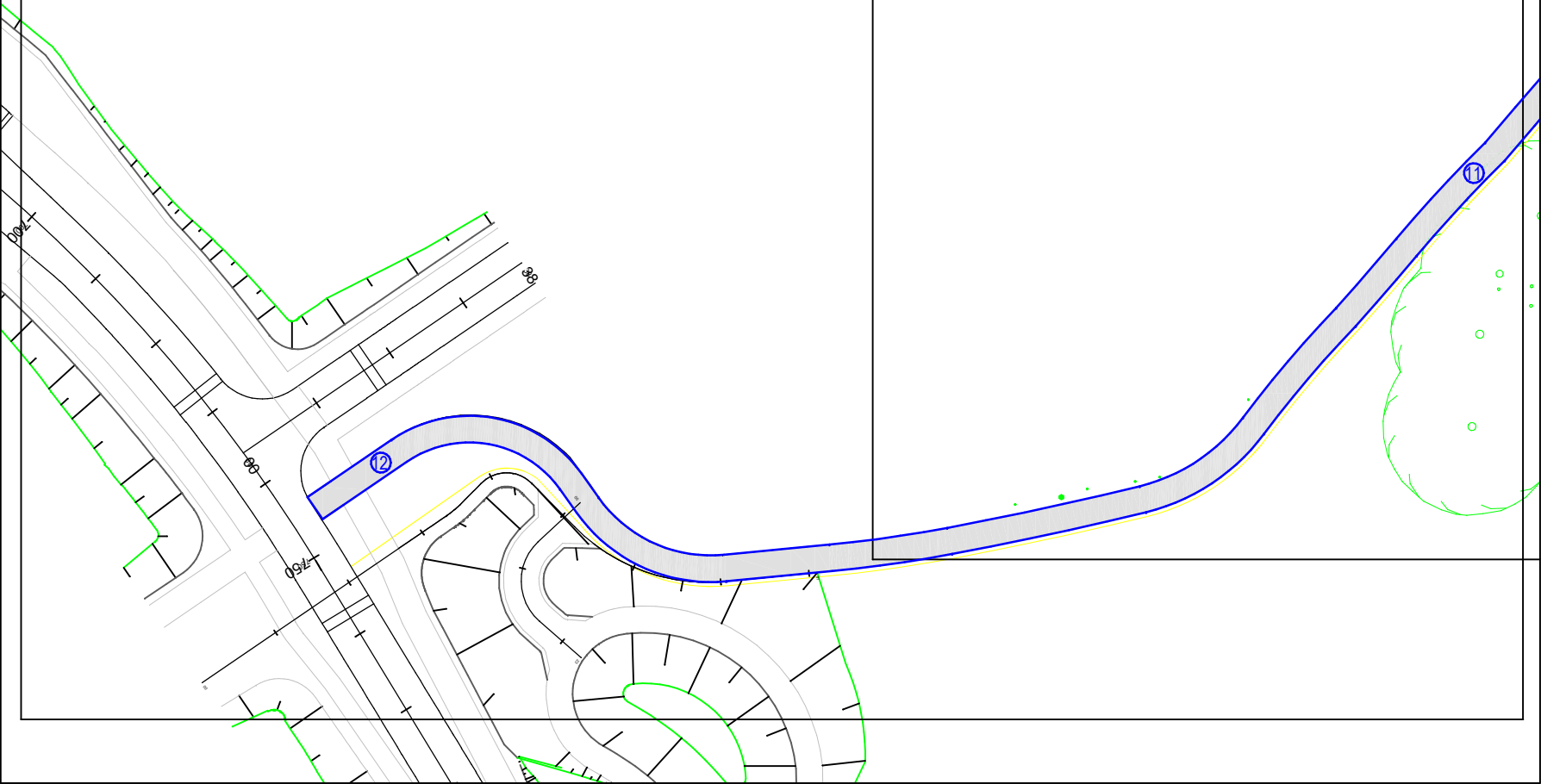
Job Reference : 552762

Drawing Title : Figure A1 - Section 6

Date : 05/07/24

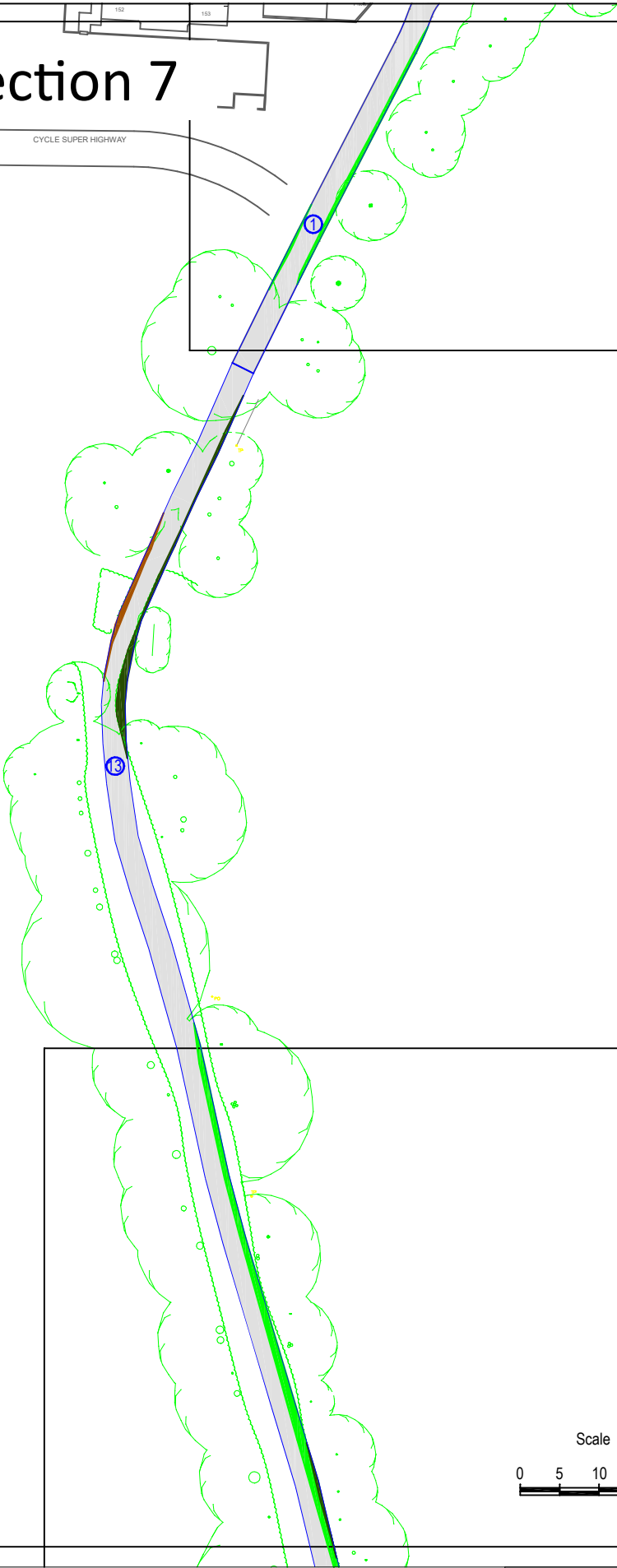
Drawn : PW

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All
measurements are for indicative purposes only.



Section 7

CYCLE SUPER HIGHWAY



Scale

0 5 10 15 20 m

Project Title : Brookleigh Green Circle

Job Reference : 552762

Drawing Title : Figure A1 - Section 7

Date : 20/12/24

Status : Final

Scale : NTS

Drawn : PW

Checked: MH

- Path edge (site boundary)
- Ruderal vegetation
- Rough grassland
- Scrub
- Bare ground

- 'No-dig' zone
- Pond
- Photograph position
- Target note (tree PRFs)

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All measurements are for indicative purposes only.



Section 8



Project Title : Brookleigh Green Circle
Drawing Title : Figure A1 - Section 8
Date : 20/12/24
Status : Final
Job Reference : 552762
Scale : NTS
Drawn : PW
Checked: MH

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All measurements are for indicative purposes only.

- | | |
|---------------------------|-------------------------|
| Path edge (site boundary) | 'No-dig' zone |
| Ruderal vegetation | Pond |
| Rough grassland | Photograph position |
| Scrub | Target note (tree PRFs) |
| Bare ground | |

APPENDIX B DORMOUSE SURVEY RESULTS



-  Path route
-  2019 dormouse record
-  2021 dormouse record
-  2019 dormouse record



 Greengage

Project Title : Brookleigh Green Circle

Job Reference : 552762

Figure B1 - Dormouse Records

Date : 05/07/24

Drawn : PW

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All
measurements are for indicative purposes only.

APPENDIX C PONDS MAP



-  Path route
-  100m buffer from path
-  Non-breeding pond (positive eDNA but zero GCN in full surveys)
-  Assumed breeding pond (positive eDNA but no access in full surveys)
-  GCN absent (negative eDNA result)



Project Title : Brookleigh Green Circle

Job Reference : 552762

Figure C1 - Ponds map

Date : 03/01/25

Drawn : PW

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All
measurements are for indicative purposes only.

APPENDIX D LEGISLATION

D.1 HAZEL DORMOUSE

Dormice are given full protection under Schedule 5 of the Wildlife and Countryside Act 1981⁶, as amended. Protection to the species is also afforded by Regulation 43 of the Conservation of Habitats and Species Regulations 2019⁷, making the hazel dormouse a European Protected Species. These two pieces of legislation operate in parallel, although there are some small differences in scope and wording. Under the provisions of Section 9 of the Wildlife & Countryside Act, it is an offence to:

- Intentionally kill, injure or take a dormouse;
- Possess or control and live or dead specimen or anything derived from a dormouse (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a dormouse; and
- Intentionally or recklessly disturb a dormouse while it is occupying a structure or place which it uses for that purpose.

Regulation 43 of the Conservation of Habitats and Species Regulations 2019 makes it an offence to:

- Deliberately capture or kill a dormouse;
- Deliberately disturb a dormouse;
- Damage or destroy a breeding site or resting place of a dormouse; and
- Keep transport, sell or exchange, or offer for sale or exchange a live or dead dormouse or any part of a dormouse.

Protected species are also a key component of government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System⁸.

This circular states that, 'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat, and that 'it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.'

As dormouse is a protected species, consideration to its presence or likely absence is therefore a key consideration of the planning process.

The National Planning Policy Framework (NPPF) 2023⁹ sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating 'plans should minimise impacts on and provide net gains for biodiversity,

including by establishing coherent ecological networks that are more resilient to current and future pressures.'

It goes on to state:

'To protect and enhance biodiversity and geodiversity, plans should:

- (a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- (b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should apply the following principles:

- (a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;'

D.2 GREAT CRESTED NEWT

Great crested newts are given full protection under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. Protection to the species is also afforded by Regulation 43 of the Conservation of Habitats and Species Regulations 2019, making the great crested newt a European Protected Species. These two pieces of legislation operate in parallel, although there are some small differences in scope and wording. Under the provisions of Section 9 of the Wildlife & Countryside Act, it is an offence to:

- Intentionally kill, injure or take a great crested newt;
- Possess or control and live or dead specimen or anything derived from a great crested newt (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

Regulation 43 of the Conservation of Habitats and Species Regulations 2019 makes it an offence to:

- Deliberately capture or kill a great crested newt;
- Deliberately disturb a great crested newt;
- Damage or destroy a breeding site or resting place of a great crested newt; and
- Keep transport, sell or exchange, or offer for sale or exchange a live or dead great crested newt or any part of a great crested newt.

D.3 BATS

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

Although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas.

The Wildlife & Countryside Act 1981 (WCA) was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annex IV of the Habitats Directive, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 43 of the Conservation of Habitats and Species Regulations 2017, which transposes the Habitats Directive into UK law.

Consequently, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

This legislation applies to all bat life stages.

The implications of the above in relation to the proposals are that where it is necessary during construction to remove trees, buildings or structures in which bats roost, it must first be determined that work is compulsory and if so, appropriate licenses must be obtained from Natural England.

D.4 NESTING BIRDS

Nesting birds, with certain exceptions, are protected from intentional killing, destruction of nests and destruction/taking of eggs under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act. Any clearance of dense vegetation should therefore be undertaken outside of the nesting bird season, taken to run conservatively from March to August (inclusive), unless an ecologist confirms the absence of active nests prior to clearance.

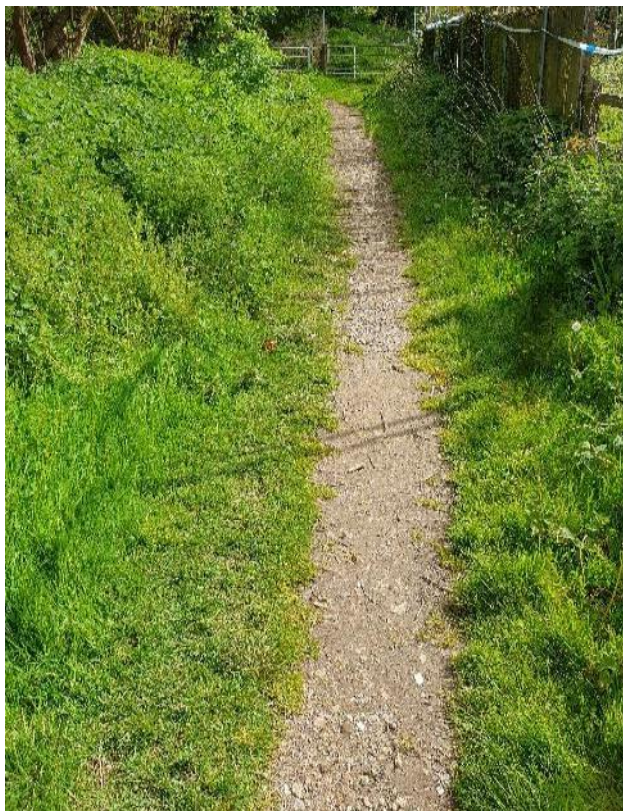
APPENDIX E PHOTOGRAPHS

Photograph locations are marked as numbers within a blue circle in the maps in Appendix A.

Photograph 1 (Path Section 1)



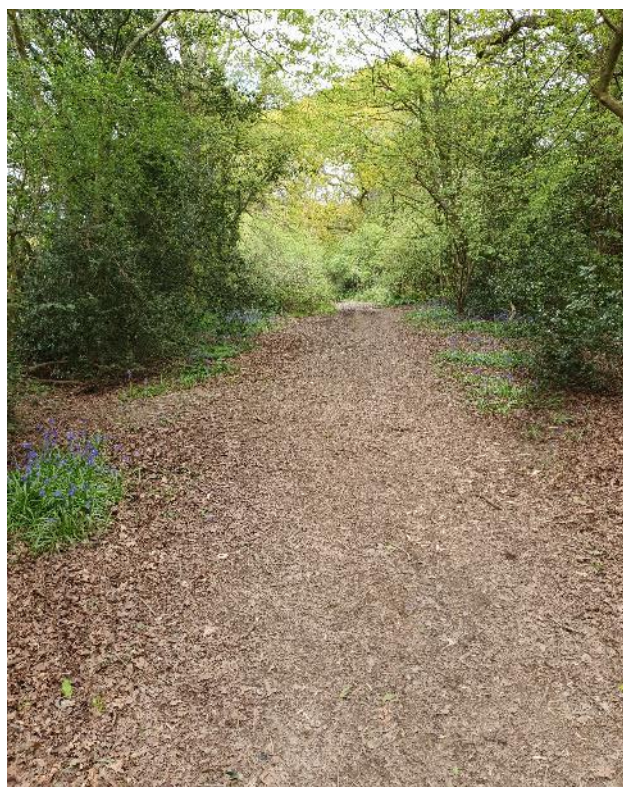
Photograph 2 (Path Section 1)



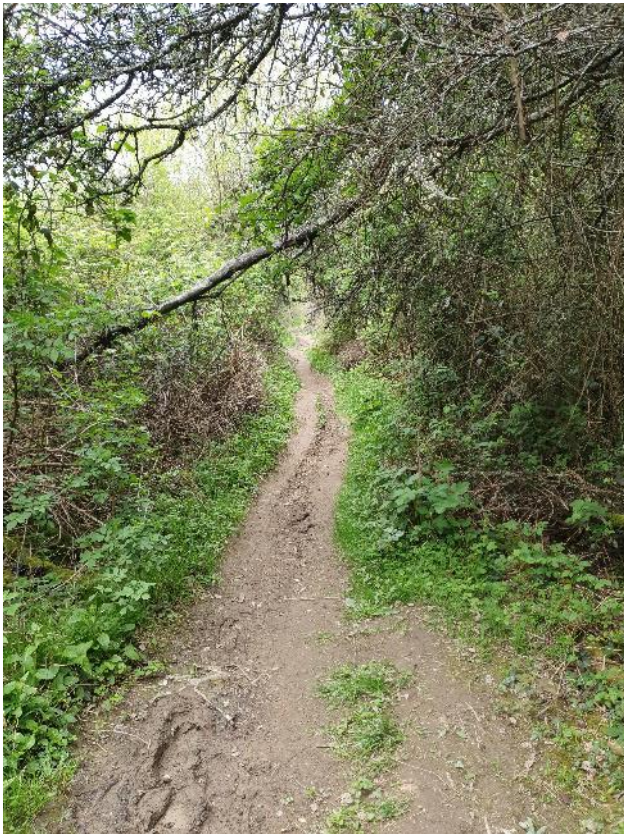
Photograph 3 (Path Section 2)



Photograph 4 (Path Section 2)



Photograph 5 (Path Section 3)



Photograph 6 (Path Section 4)



Photograph 7 (Path Section 4)



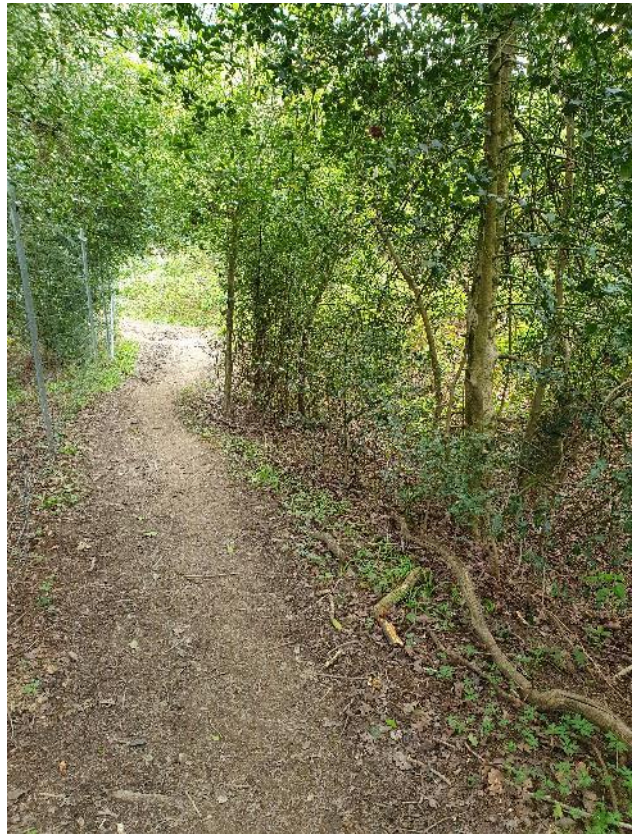
Photograph 8 (Path Section 4)



Photograph 9 (Path Section 4)



Photograph 10 (Path Section 4)



Photograph 11 (Path Section 5)



Photograph 12 (Path Section 6)



Photograph 13 (Path Section 7)



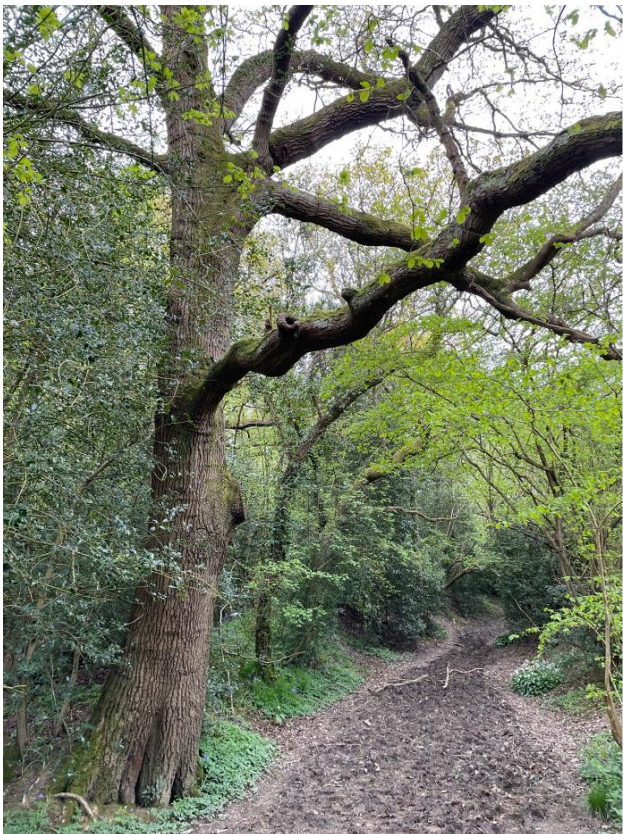
TN1 (PRF in overhanging hazel branch)



Photograph 14 (Path Section 8)



TN2 (PRF in overhanging oak branch at height)



TN3 (split in overhanging hazel branch)



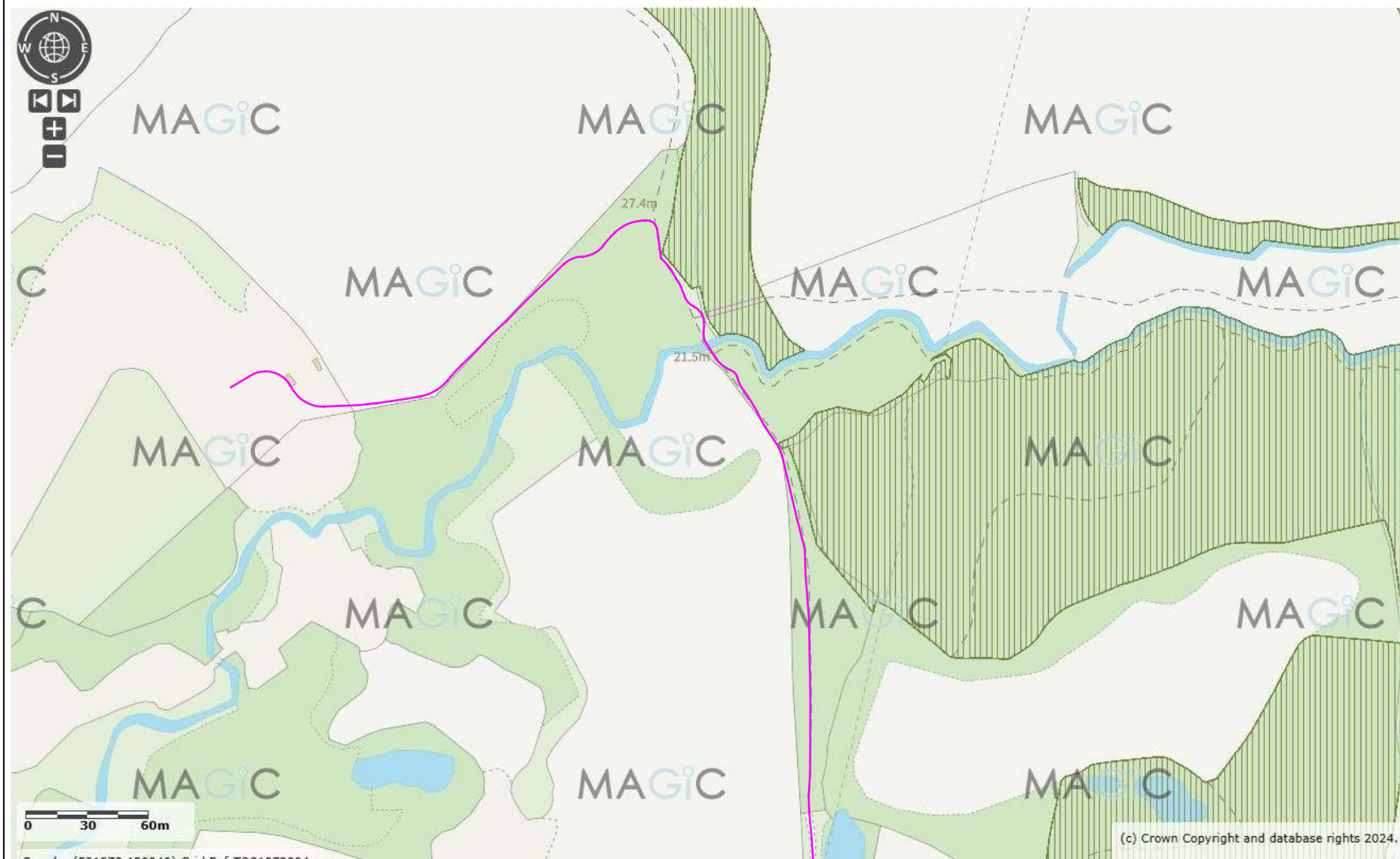
TN4 (Ash with split trunk - retain)



TN5 (split near base of hazel)



APPENDIX F ANCIENT WOODLAND MAP



- Path route
- Ancient woodland



Project Title : Brookleigh Green Circle

Job Reference : 552762

Figure F1 - Ancient woodland

Date : 05/07/24

Drawn : PW

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site. All
measurements are for indicative purposes only.

REFERENCES

¹ Bright, Morris and Tony Mitchell-Jones (2006). *The dormouse conservation handbook*, Second edition

² English Nature (now Natural England) (2001). *Great crested newt mitigation guidelines*

³ Natural England (2015). *Great Crested Newt Method Statement for EPS Licence Application*.

⁴ Natural England (2015). *Great Crested Newt Method Statement for EPS Licence Application*.

⁵ Natural England and the Forestry Commission (2022). *Ancient woodland, ancient trees and veteran trees: advice for making planning decisions* - GOV.UK (www.gov.uk)

⁶ HM Government, (1981); *Part I and Part II of Wildlife and Countryside Act (as amended)*. HMSO

⁷ HM Government, (2019); *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. Statutory Instrument 2019 no. 579

⁸ ODPM, (2005); Circular 06/2005; *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. TSO

⁹ GOV.UK. (2023). *National Planning Policy Framework*. [online] Available at:

<https://www.gov.uk/government/publications/national-planning-policy-framework--2>