



Vistry Group

Land Surrounding Burloes Cottages, Newmarket Road, Royston

ECOLOGICAL APPRAISAL

October 2025

FPCR Environment and Design Ltd

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EXECUTIVE SUMMARY

- FPCR Environment and Design Ltd. (FPCR) were commissioned by Vistry Group to complete an ecological assessment of a site at Land Surrounding Burloes Cottages, Newmarket Road, Royston.
- The site was dominated by intensively managed arable land. Other habitats present included plantation broadleaved woodland, neutral semi-improved grassland, tall ruderal vegetation, amenity grassland and hardstanding.
- Therfield Heath SSSI was located c.1.47km west of the site. This SSSI is discussed further within *RECREATIONAL MITIGATION STRATEGY – THERFIELD HEATH SSSI* (FPCR, 2024) however with the implementation of discussed mitigation, it's concluded that there will be no significant adverse effects on the condition of the Therfield Heath SSSI as a result of the proposed development. It is anticipated that development is unlikely to impact on the nature conservation status of Holland Hall (Melbourn) Railway Cutting SSSI and the two LWSs.
- The only habitat identified as meeting the criteria for classification as Habitat of Principal Importance under the Natural Environment & Rural Communities (NERC) Act was the eastern plantation broadleaved woodland. With the exception of two small lengths required to be removed to facilitate an emergency access point and footway connection, this woodland is to be retained.
- In order to facilitate site and emergency access, a number of trees providing 'low' roosting potential and 'moderate' roosting potential for bats are required to be removed. Further survey work in the form of aerial assessments did not identify the presence of roosting bats in any of these trees.
- It was concluded that with the implementation of mitigation, the effect on breeding and wintering birds is predicted to be negligible during the construction phase and beneficial at the site level during the occupation phase. Arable land which provides potential suitable ground nesting habitat will be lost. The arable habitat furthermore provides a potential suitable overwintering foraging resource for birds. This will be mitigated by the establishment of berry bearing scrub and species rich meadow grassland providing seeds. To avoid disturbance to nesting birds it is recommended that any woody vegetation removal works are undertaken outside of the breeding bird season (i.e. avoiding March to September inclusive). If this is not possible a nesting bird check must be undertaken by a suitably qualified ecologist prior to removal, with vegetation/ suitable nest sites removed within 48 hours if this check confirms no active nests are present.
- GCN have been identified as highly unlikely to be present within the site. As a result, GCN have not been identified as a statutory constraint to development and further survey work and/or mitigation for GCN would not be proportionate.
- The site did not provide a suitable matrix of habitat to support a viable reptile population, however precautionary working practices during the clearance of suitable habitat is recommended.

1.0 INTRODUCTION

- 1.1 The following report has been prepared by FPCR Environment and Design Ltd. (FPCR) on behalf of Vistry Group and details the results of an Ecological Appraisal of an area of land located at Land Surrounding Burloes Cottages, Newmarket Road, Royston (hereafter referred to as the 'Site' (central OS grid reference: TL369406).
- 1.2 The aims of the appraisal are to update the result of previous ecological surveys completed between 2015 and 2020 to identify any habitat change, the potential presence of protected species and any other features of ecological value within the Site, to identify and describe potential ecological constraints and impacts of the proposed development, and to set out appropriate avoidance, mitigation, compensation and enhancement measures that could be implemented.
- 1.3 The appraisal of the Site has been informed by an ecological desk study, extended Phase I habitat and hedgerow survey and further protected species surveys.

Site Location, Context and Development Proposals

- 1.4 The site is located within the LPA boundary of North Hertfordshire District.
- 1.5 The site was dominated by intensively managed arable land. Other habitats present included plantation broadleaved woodland, amenity grassland, neutral semi-improved grassland, hardstanding and tall ruderal vegetation.
- 1.6 Neighbouring land to the north comprises Newmarket Road, sport pitch and housing development currently under construction, to the east and south existing semi-mature to mature plantation broadleaved woodland and to the west existing semi-mature to mature plantation woodland and existing residential development.
- 1.7 The site is an allocated site for residential development of 300 homes under Policy RY10 of the adopted 2011-2031 North Hertfordshire Local Plan¹.
- 1.8 Proposals include the hybrid application for residential development of up to 325 dwellings comprising (a) full planning application for Phase 1 comprising 106 dwellings and associated infrastructure including access from Newmarket Road, emergency and pedestrian/cycle access from Burloes Hall Drive, internal highways, public open space, landscaping and drainage and b) outline application for up to 219 dwellings and associated infrastructure with all matters reserved apart from primary means of access and emergency and pedestrian/cycle access from Burloes Hall Drive..
- 1.9 Previous ecology reporting and surveys by SES (Southern Ecological Solutions) were completed at the site in order to inform the previous outline planning application and reserved matters between 2015 and 2020. The results of these surveys are provided within:
 - *Extended Phase 1 Habitat Survey: Park Field, Newmarket Road, Royston, Hertfordshire*. SES (December 2016);
 - *Phase 2 Ecological Surveys & Assessment: Park Field, Newmarket Road, Royston, Hertfordshire*. SES (December 2016);

¹ North Hertfordshire Local Plan 2011 – 2031. North Herts Council (November 2022).

- *Report to inform the Screening of Effects on nearby Statutory Designated Sites: Park field, Newmarket Road, Royston, Hertfordshire.* SES (December 2016); and
- *Addendum Ecology Report: Park Field, Newmarket Road, Royston, Hertfordshire, SG8 7NJ.* SES (July 2020).

1.10 This updated ecology report is intended to inform a new outline planning application for around 300 dwellings.

2.0 METHODOLOGY

Desk Study

- 2.1 An ecological desk study was undertaken to collate existing baseline information held by statutory and non-statutory consultees. The following baseline data was collated:
- Records of statutory designated sites of European nature conservation importance (such as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites), national/regional nature conservation importance (such as Sites of Special Scientific Importance (SSSIs) and National Nature Reserves (NNRs)), and sites of local nature conservation importance (Local Nature Reserves (LNR)) within 10km, 2km and 1km of the site, respectively;
 - Non-statutory designated sites for nature conservation for within 1km of the site, Local Wildlife Sites (LWS) which are designated on the basis of the habitat(s) they support or the known presence of rare, local and/or declining species, and
 - Records of legally protected or otherwise notable species, including Species of Principal Importance under the Natural Environment & Rural Communities (NERC) Act 2006 from within 1km of the site, with data from the last 20 years used.
- 2.2 Existing ecological information was requested from Herts Environmental Records Centre (HERC) and Cambridgeshire and Peterborough Environmental Records Centre (CPERC).
- 2.3 Online resources, including data available through the Multi-Agency Geographic Information for the Countryside² and Bing maps³ were used to supplement information obtained from consultees, and reviewed in order to obtain an overview of statutory designations and identify any features of potential importance for nature conservation in the wider landscape.

Field Survey

Extended Phase 1 Survey Habitats

- 2.4 An update extended phase 1 habitat survey was undertaken on 10th October 2023 by a suitably experienced ecologist holding a level 3 FISC. Survey methods followed the Phase I Survey technique⁴. This involved a systematic walkover of the site to classify the broad habitat types and to particularly identify any Habitats of Principal Importance for the conservation of biodiversity under the NERC Act 2006. In addition, species lists were compiled for each habitat type present, and their relative abundances recorded using the DAFOR scale.

Biodiversity Net Gain (BNG) Assessment

- 2.5 A BNG assessment completed on the scheme has been calculated in accordance with DEFRA Statutory biodiversity metric calculation tool, with the results of the phase 1 habitat survey, condition assessment survey in accordance with Statutory biodiversity metric condition assessments excel spreadsheet and landscape masterplan (ROY01-LLA-ZZ-ZZ-DR-L-0001_P04 Landscape Masterplan) .

² Magic [online] <https://magic.defra.gov.uk/MagicMap.aspx>

³ Bing Maps <https://www.bing.com/maps>.

⁴ JNCC 2010. *Handbook for Phase I habitat survey – a technique for environmental audit*. JNCC, Peterborough.

- 2.6 The development site was mapped and divided into existing habitat criteria. Habitats were defined using the UK Habitat Classification with further information providing habitat area, distinctiveness and condition, which are used to calculate the value of each habitat.
- 2.7 Full details of the calculation methodology are provided in the Statutory biodiversity metric: user guide.

Fauna

Bats

Ground Level Tree Assessment

- 2.8 Tree assessments were undertaken from ground level, with the aid of a torch and binoculars (where appropriate). This survey was undertaken on 10th October 2023 by a suitably experience ecologist. During the survey Potential Roosting Features (PRFs) for bats were sought⁵.
- 2.9 Certain factors such as orientation of the feature, its height from the ground, the direct surroundings and its location in respect to other features may enhance or reduce the potential value.
- 2.10 Trees were classified into general bat roost potential groups based upon the presence of these features. Table 1 (below) broadly classifies the potential categories as accurately as possible as well as discussing the relevance of the features. This table is based upon Table 4.1 and Chapter 6 in Bat Surveys for Professional Ecologists: Good Practice Guidelines (J., Collins (Bat Conservation Trust), 2016).
- 2.11 Although the British Standard 8596:2015 document groups trees with moderate and high potential, these have been separated below (as per Table 4.1 in The Bat Conservation Trust Guidelines) to allow more specific survey criteria to be applied.

Table 1: Classification and Survey Requirements for Bats in Trees

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey Work/Actions
High Potential	A tree with one or more Potential Roosting Features that are obviously suitable for larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat. Examples include (but are not limited to); woodpecker holes, larger cavities, hollow trunks, hazard beams, etc.	Aerial assessment by roped access bat workers (if appropriate) and/or nocturnal survey during appropriate period (May to August). Following additional assessments a tree may be upgraded or downgraded based on findings. If roost sites are confirmed and the tree or roost is to be affected by proposals a licence from Natural England will be required. After completion of survey work (and the presence of a bat roost is discounted), a precautionary working

⁵ British Standard 8596:2015 Surveying for bats in trees and woodland, October 2015.

Classification of Tree	Description of Category and Associated Features (based on Potential Roosting Features listed above)	Likely Further Survey Work/Actions
		method statement may still be appropriate.
Moderate Potential	A tree with Potential Roosting Features which could support one or more potential roost sites due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat but unlikely to support a roost of high conservation status (i.e. larger roost, irrespective of wider conservation status). Examples include (but are not limited to); woodpecker holes, rot cavities, branch socket cavities, etc.	A combination of aerial assessment by roped access bat workers and/or nocturnal survey during appropriate period (May to August). Following additional assessments a tree may be upgraded or downgraded based on findings. After completion of survey work (and the presence of a bat roost is discounted), a precautionary working method statement may still be appropriate. If a roost site/s is confirmed a licence from Natural England will be required.
Low Potential	A tree of sufficient size and age to contain Potential Roosting Features but with none seen from ground or features seen only very limited potential. Examples include (but are not limited to); loose/lifted bark, shallow splits exposed to elements or upward facing holes.	No further survey required but a precautionary working method statement may be appropriate.
Negligible/No potential	Negligible/no habitat features likely to be used by roosting bats	None.

Aerial Roped Access Tree Inspections

- 2.12 Aerial inspections via roped access were completed on trees identified during the ground level inspections having low and moderate potential to support roosting bats that are to be removed as a result of proposed development. Features surveyed in further detail during the aerial survey included cracks, fissures, cavities, woodpecker/rot holes or missing limbs. Evidence of use sought comprised live or dead bats, droppings, urine staining, internal smoothing and grease/scratch marks on wood. The presence of dense ivy cover (if present) was also noted as this can obscure the aforementioned features.
- 2.1 Each feature suitable for roosting bats was visually inspected using torches and/or endoscopes as appropriate. The characteristics of each feature were considered in order to assess its suitability to support roosting bats and to determine a suitable course of action to accommodate tree removal, if required, in line with Table 1. The size and exposure to the elements of each was additionally taken into account, as were features such as dense cobwebs or the habitation of a feature by other species (e.g. woodpeckers, squirrels, wasps etc.).

- 2.2 All trees were surveyed on 24th June 2024. Two further aerial inspections were undertaken on moderate potential trees on 1st August 2024 and 23rd August 2024. All FPCR tree climbers are NPTC Certified to Climb Trees (J/101/2449) and Perform Aerial Rescue (A/101/2450) – Level 2. The climbing methodology used follows that detailed within the Arboriculture and Forestry Advisory Group (AFAG) Tree Climbing Operations Leaflet (AFAG401). Climbing equipment was inspected following guidelines outlined in the Lifting Operations and Lifting Equipment Regulations 1998.
- 2.3 The above assessments were completed by a licensed bat worker from FPCR (Natural England Licence Numbers: 2024-12510-CL18-BAT and 2024-12575-CL18-BAT), assisted by an experienced surveyor.

Commuting and Foraging

- 2.4 Habitats present within and bounding the site were considered for their potential to support commuting and foraging bats.

Birds

- 2.5 Habitats present within the site were considered for their potential suitability to support nesting birds, in addition to their value as a resource for overwintering bird populations.

Great Crested Newt (GCN) *Triturus cristatus*

- 2.6 There are no ponds or other waterbodies present within the site, however as part of the habitat survey, any ponds or other suitable breeding habitat for GCN within a 250m radius of the site were identified via aerial imagery and OS mapping, and an assessment made of their suitability to support breeding GCN populations. Consideration was also given to the quality of terrestrial habitats between such features and the site.

Hazel Dormice *Muscardinus avellanarius*

- 2.7 Habitats were assessed for their general suitability for hazel dormice. This species generally uses areas of dense woody vegetation and are more likely to be found where there is a wide diversity of woody species contributing to a three-dimensional habitat structure, a number of food sources, plants suitable for nest-building materials and good habitat connectivity.

Reptiles

- 2.8 Habitats present within the site were considered for their potential suitability to support reptile populations. These include the presence of features that provide opportunities for reptiles to bask, forage and/or hibernate, and areas of varied vegetation structure in sheltered locations with sunny aspects and connectivity to other suitable reptile habitats. This assessment was based on the methodology detailed in the Herpetofauna Workers Manual⁶ and the Froglife Advice Sheet⁷.

⁶ Gent, A.H. & Gibson, S.D., eds., 1998. *Herpetofauna Workers' Manual*. Peterborough, Joint Nature Conservation Committee.

⁷ Froglife, 1999. *Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth.

3.0 RESULTS

Desk Study (Figure 1)

- 3.1 Locations of statutory and non-statutory sites referred to in the following section are illustrated on Figure 1.

Statutory Designations

- 3.2 The site is not covered by, and does not lie adjacent to, any statutory sites designated for their nature conservation value.
- 3.3 No international sites designated for nature conservation were located within a 10km radius of the site.
- 3.4 Two national and local statutory designated sites for nature conservation were identified within a 2km radius of the site, details of which are provided within Table 2.

Table 2: Statutory Sites of Nature Conservation Interest

Site Name	Designation Status	Closest approx. location to Site (km)	Description
Therfield Heath	SSSI & LNR	c.1.47km west	The site comprises chalk grassland habitat, which supports a diverse array of insects, including the chalk hill blue butterfly <i>Lysandra coridon</i> . The unimproved pasture is dominated by red fescue <i>Festuca rubra</i> and upright brome <i>Bromus erectus</i> , as well as a rich assemblage of herbs, including spotted cat's ear <i>Hypochoeris maculata</i> and pasque flower <i>Pulsatilla vulgaris</i> . Mixed scrub communities can be found on site, in addition to two areas of mature beech woodland.
Holland Hall (Melbourn) Railway Cutting	SSSI	c.1.63km north	A steep railway cutting through chalk where the slopes comprise of chalk grassland, dominated by species such as upright brome, quaking-grass <i>Briza media</i> and sheep's-fescue <i>Festuca ovina</i> . There are areas of highly calcareous soils which support the nationally uncommon wild candytuft <i>Iberis amara</i> , as well as greater pignut <i>Bunium bulbocastanum</i> and wild carrot <i>Daucus carota</i> . Some scrub is also present.

Non-Statutory Designations

- 3.5 The site is not covered by, and does not lie adjacent to, any non-statutory designated site of notable nature conservation value.
- 3.6 Two non-statutory designated sites for nature conservation were located within 1km of the application site, descriptions of which are outlined in Table 3.

Table 3: Non-Statutory Sites of Nature Conservation Interest

Site Name	Designation Status	Closest approx. location to Site (m)	Description
Shaftsbury Green	LWS	c.515m west	An area of semi-improved calcareous grassland that supports a variety of plants, including upright brome, common knapweed <i>Centaurea nigra</i> and bird's-foot-trefoil <i>Lotus corniculatus</i> .
Royston Chalk Pit	LWS	c.570m west	A former lime kiln is dominated by mature scrub such as beech <i>Fagus sylvatica</i> , sycamore <i>Acer pseudoplatanus</i> and ash <i>Fraxinus excelsior</i> . Chalky woodland flora is also present on site, including wood false-brome <i>Brachypodium sylvaticum</i> . The site is important for protected species.

Species Records

- 3.7 Records provided by HERC and CPERC concerning protected or otherwise notable taxa from within a 1km search area are summarised below and shown on Figure 1.

Bats

- 3.8 Records of at least five bat species were identified within 1km of the site, though no existing bat records were returned from within the site. The closest record was a Daubenton's bat *Myotis daubentonii* located 630m west in Royston Chalk Pit. Other species identified included brown long-eared bat *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, natterer's bat *Myotis nattereri* and western barbastelle *Barbastella barbastellus*. An unidentified *Pipistrellus* sp. was also recorded.

Birds

- 3.9 A total of 63 protected and/or notable bird records were identified within 1km of the site, including 23 Red list BOCC 5 (Birds of Conservation Concern) species, as summarised in Table 4 below.

Table 4: Bird Species Records within 1km of the site and BOCC5 status.

Species Name	Scientific Name	UK Status
Barn Owl	<i>Tyto alba</i>	WCA1i
Black Redstart	<i>Phoenicurus ochruros</i>	Amber & WCA1i
Black-tailed Godwit	<i>Limosa limosa</i>	Red & WCA1i
Brambling	<i>Fringilla montifringilla</i>	WCA1i
Corn Bunting	<i>Emberiza calandra</i>	Red
Crossbill	<i>Loxia curvirostra</i>	WCA1i
Curlew	<i>Numenius aquata</i>	Red
Fieldfare	<i>Turdus pilaris</i>	Red
Firecrest	<i>Regulus ignicapilla</i>	WCA1i
Greenfinch	<i>Chloris chloris</i>	Red
Grey Partridge	<i>Perdix perdix</i>	Red
Hen Harrier	<i>Circus cyaneus</i>	Red & WCA1i
Hobby	<i>Falco subbuteo</i>	WCA1i
Honey-buzzard	<i>Pernis apivorus</i>	Amber & WCA1i

Species Name	Scientific Name	UK Status
House Martin	<i>Delichon urbicum</i>	Red
House Sparrow	<i>Passer domesticus</i>	Red
Lapwing	<i>Vanellus vanellus</i>	Red
Lesser Spotted Woodpecker	<i>Dryobates minor</i>	Red
Linnet	<i>Linaria cannabina</i>	Red
Marsh Harrier	<i>Circus aeruginosus</i>	Amber & WCA1i
Mistle Thrush	<i>Turdus viscivorus</i>	Red
Nightingale	<i>Luscinia megarhynchos</i>	Red
Pallid Harrier	<i>Circus macrourus</i>	WCA1i
Peregrine	<i>Falco peregrinus</i>	WCA1i
Quail	<i>Coturnix coturnix</i>	Amber & WCA1i
Red Kite	<i>Milvus milvus</i>	WCA1i
Redwing	<i>Turdus iliacus</i>	Amber & WCA1i
Ring Ouzel	<i>Turdus torquatus</i>	Red
Skylark	<i>Alauda arvensis</i>	Red
Spotted Flycatcher	<i>Muscicapa striata</i>	Red
Starling	<i>Sturnus vulgaris</i>	Red
Swift	<i>Apus spus</i>	Red
Tree Sparrow	<i>Passer montanus</i>	Red
Turtle Dove	<i>Streptopelia turtur</i>	Red
Yellow Wagtail	<i>Motacilla flava</i>	Red
Yellowhammer	<i>Emberiza citrinella</i>	Red

Other Mammals

- 3.10 Records for West European hedgehog *Erinaceus europaeus* records were returned from within 1km of the site, the closest located 225m south of the site. Chinese muntjac records were also returned, the closest of which was recorded approximately 640m west of the site boundary.

Amphibians and Reptiles

- 3.11 There are no records of GCN or reptiles from consultation data records received from HERC and CPERC SER within a 1km radius of the site. There are no records of GCN or GCN EPSL are located within a 1km radius of the site from Magic Map.

Other Notable species

- 3.12 A number of invertebrate records were returned from within 1km of the site, including small heath *Coenonympha pamphilus pamphilus* and white-letter hairstreak *Satyrus w-album*.

Field Survey – Habitats

Overview

- 3.13 The habitats described below correspond to those mapped on Figure 2: Phase 1 Habitat Plan. Plant species lists for each habitat are provided in Appendix A.

- 3.14 The site was dominated by intensively managed arable land, currently used for cereal crops. Other habitats within and/or bounding the site included buildings, hardstanding, lawn and planting, rear garden boundaries, introduced shrub hedgerow, native species hedgerow, fence, coniferous trees scrub and broadleaved trees.
- 3.15 Results from this updated report identifies that no material change in habitats or their condition and management has occurred between most previous ecological surveying (SES, July 2020) and this updated assessment.

Arable

- 3.16 The site was dominated by a single intensively managed arable field compartment. At the time of survey, the field was cultivated with a recently sown unidentified crop. Very narrow (c.1m) arable field margins were present around the peripheries of the arable field and were very limited in botanical diversity.

Plantation Broadleaved Woodland

- 3.17 Four separate areas of established semi-mature to mature broadleaved plantation woodland were present within the site boundary.
- 3.18 Along the northern edge of the site, the canopy was c.12m in height, with canopy species including frequent ash *Fraxinus excelsior*, beech *Fagus sylvatica* and sycamore *Acer pseudoplatanus*. The woodland comprised a sparsely vegetated understorey layer which included occasional blackthorn *Prunus spinosa*, bramble, *Rubus fruticosus*, elder *Sambucus nigra* and hawthorn *Crataegus monogyna*. The herb layer was abundant in garlic mustard *Alliaria petiolate* and common ivy *Hedera helix*.
- 3.19 Along part of the east of the site, the canopy was c.18m in height, with canopy species including abundant beech, occasional sycamore and rare Scots pine *Pinus sylvestris*. The woodland comprised an established understorey layer which included abundant privet *Ligustrum* species and occasional hawthorn, holly *Ilex aquifolium* and mountain grape *Mahonia aquifolium*. The herb layer included frequent common ivy, sanicle *Sanicula europaea* and violet *Viola* species.
- 3.20 A small copse was present within the centre of the arable field compartment. The canopy was c.15m in height, with canopy species including abundant sycamore and occasional beech. The understorey layer was sparsely vegetated and comprised occasional dog-rose *Rosa canina* and elder. The herb layer was dominated by ruderal species including abundant common nettle *Urtica dioica* and frequent barren brome *Bromus sterilis*, black-horehound *Ballota nigra*, cleavers *Galium aparine* and cow parsley *Anthriscus sylvestris*.

Neutral Semi-Improved Grassland

- 3.21 A small area of neutral semi-improved grassland was present within a single corner along the northern site boundary. This grassland is set aside from the arable production of the wider field compartment likely due to the restrictive location for large arable machinery. At the time of survey, the grassland sward was c.10-20cm and comprised a lush and tussocky sward structure. Species composition included abundant barren brome *Bromus sterilis*, frequent cleavers and garlic mustard and occasional common couch *Elymus repens*, creeping thistle *Cirsium arvense*, hoary willowherb *Epilobium parviflorum* and smooth meadow-grass *Poa pratensis*.

Tall Ruderal Vegetation

- 3.22 A small area of tall ruderal vegetation was present associated with perimeter vegetation of the small woodland copse within the centre of the arable field compartment. Species comprised abundant common nettle and occasional garlic mustard and black-horehound.

Amenity Grassland

- 3.23 Amenity grassland was present bordering hardstanding driveway along the east of the site and adjacent to where the driveway meets the main road at the north-eastern corner of the site. At the time of survey, the grassland located either side of the hardstanding driveway was managed via a frequent mowing regime, exhibiting a short fine sward. The grass was also heavily shaded by the adjacent woodland canopies and leaf litter, so some parts of the grassland were bare in places. At the junction of the main road, the grassland was managed via frequent mowing and comprised a sward of c.0-3cm in height. Species composition included frequently occurring autumn hawkbit *Scorzonoides autumnalis* and wood meadow grass *Poa nemoralis* (due to its location under woodland canopy) and occasional greater plantain *Plantago major* and ribwort plantain *Plantago lanceolata*. As the substrate of the amenity grassland was calcareous, a small number of calcareous indicator species were identified as rarely occurring in abundance, including agrimony *Agrimonia eupatoria*, field scabious *Knautia arvensis* and burnet saxifrage *Pimpinella major*.

Dry Ditch

- 3.24 A dry ditch was present along the southern edge of Newmarket Road located within the northern plantation broadleaved woodland. The ditch was dry at the time of survey and indicated no evidence of holding water for long periods of time. Vegetation comprised that largely of the northern plantation woodland herb flora, including garlic mustard, common ivy and common nettle.

Hardstanding

- 3.25 Hardstanding was present in the form of Newmarket Road along the north and a driveway along the east.

Fauna

Bats

Roosts

Ground Level Tree Assessment

- 3.26 Previous ground-based tree assessments undertaken identified a number of trees which provided suitable features to offer 'low' and 'moderate' potential to support roosting bats.
- 3.27 During this update survey, a total of 49 trees within or adjacent to the site boundary were identified to present features suitable to support roosting bats.
- 3.28 Of these, ten trees were assessed as providing a 'moderate' potential to support roosting bats (trees T5, T13, T15, T20, T29, T35, T43, T45, T46 and T48 on Figure 2 or tree/groups G5, G2, G2, G2, G1, G1, T58, T62 and T63 on the Arboricultural Report and Tree Condition Survey report (Ruskins, April 2024) respectively). Trees T15, T45 and T46 are located outside of the Site boundary.
- 3.29 The remaining 39 trees were assessed as providing a 'low' potential to support roosting bats.

- 3.30 Trees T6 to T8, T15 to T16, T23 to T25, T29 to T30 and T43 to T49 are located adjacent to outside of the Site boundary.

Aerial Assessment

- 3.31 In order to facilitate a site access in the north of the site, an emergency access point in the east of the site and the potential removal of two trees for SuDS/drainage, a number of trees will likely be required to be removed. As such, further survey work in the form of aerial roped access surveys were undertaken. A single aerial survey was undertaken on all 'low' potential trees which are to be removed, and three aerial surveys were undertaken on all 'moderate' potential trees which are to be removed.
- 3.32 Low potential trees which are to be removed include trees T2, T3, T12, T14, T17, T18, T19 and T33 (Figure 2) or tree/groups G2, G2, G2, G2, G2, G2, G2 and G1 (on the Arboricultural Report and Tree Condition Survey report). These were aerially assessed on 24th June 2024. Updates to the Masterplanning and layout after trees T2 and T3 were assessed now retain both of these trees. No roosting bats were identified during the aerial assessment.
- 3.33 Moderate potential trees which are to be removed include trees T13 and T20 or G2 and G2 on the Arboricultural Report and Tree Condition Survey report. These were aerially assessed on 24th June 2024, 1st August 2024 and 23rd August 2024. No roosting bats were identified during all aerial assessments.

Commuting and Foraging

- 3.34 The boundary habitats on site plantation broadleaved woodland were considered to provide suitable opportunities for commuting and foraging bats. In addition, these habitats were well-connected to further areas of suitable commuting, foraging and roosting habitat offsite, including a surrounding woodland network. This updated assessment confirmed that no material change in habitats or management of the site has occurred since previous surveys.
- 3.35 Previous activity transect and automated static detector surveys undertaken at the site identified ten species of bat utilising onsite habitats. These included common pipistrelle, soprano pipistrelle *Pipistrellus pygmaeus*, Leisler's bat *Nyctalus leisleri*, noctule *Nyctalus noctula*, unidentified *Nyctalus* species, serotine *Eptesicus serotinus*, unidentified *Myotis* species, unidentified pipistrelle species, big bat species and brown long-eared bat. No Annex II species of bats were identified utilising the site. Previous data suggests higher levels of bat activity associated with habitat along or adjacent to the western site boundary, with surveys concluding relatively low levels of bat activity and dominated by common pipistrelle.

Birds

- 3.36 Woody vegetation in the form of plantation broadleaved woodland provided suitable habitat for breeding birds. In addition to the woody vegetation, the arable cereal crop land provides potential suitable opportunities for ground nesting birds and suitable foraging opportunities.
- 3.37 The large open arable nature of the site provides potential suitable overwintering habitat for overwintering birds in the form of a foraging resource.
- 3.38 Previous breeding bird and wintering bird surveys carried out at the site identified that the majority of bird interest of the site was associated with the adjacent woodlands.

- 3.39 This updated assessment confirmed that no material change in habitats or management of the site has occurred since previous surveys.
- 3.40 A total of 22 breeding (one confirmed (Robin *Erithacus rubecula*) and remainder possible or probable) and 35 wintering species were recorded within or adjacent to the study area. These included seven red-listed Birds of Conservation Concern (BoCC). The species recorded on site were all widespread and generally abundant, with a single wintering woodcock *Scolopax rusticola* the most notable record.
- 3.41 Only two notable arable specialist species were recorded on site, skylark *Alauda arvensis* and yellowhammer *Emberiza citrinella*, though both were only recorded as non-breeding species during the wintering bird surveys.
- 3.42 All of the bird species recorded on site were relatively widespread. The species list reflected the common habitats within the site and the small size of the breeding bird community is considered to result from the lack of diversity of habitats on site.
- 3.43 The breeding bird community was hence considered as being of local value.

Great Crested Newt

Terrestrial Habitat

- 3.44 The vast majority of the site (intensively managed arable land) was considered to provide a sub-optimal commuting, foraging and sheltering habitat for GCN. Arable field margins, woodland, neutral semi-improved grassland and tall ruderal vegetation provide the only suitable terrestrial GCN habitat.

Breeding Habitat

- 3.45 No suitable breeding habitat was present within a 500m radius of the site.

Hazel Dormouse

- 3.46 Surveys for hazel dormouse have previously been undertaken at the site. Results did not identify the presence of this species utilising the site.
- 3.47 This updated assessment confirmed that no material change in habitats or management of the site has occurred since previous surveys.

Reptiles

- 3.48 The site did not support a matrix of habitats suitable to support a viable reptile population. Previous ecology reports undertaken at the site have not identified the requirement to undertake reptile surveys however acknowledge the possibility of a small number of individuals possibly utilising the site.

4.0 DISCUSSION, RECOMMENDATIONS AND CONCLUSIONS

Sites of Nature Conservation Value

- 4.1 Therfield Heath SSSI was located c.1.47km west. This SSSI is discussed further within *RECREATIONAL MITIGATION STRATEGY – THERFIELD HEATH SSSI* (FPCR, 2024) however with the implementation of discussed mitigation, it is concluded that there will be no significant adverse effects on the condition of the Therfield Heath SSSI as a result of the proposed development. Holland Hall (Melbourn) Railway Cutting was located c.1.63km north. No impacts to the nature conservation status of the designation are anticipated during both the construction and operational phases of development. The site is suitably located far enough away with existing buffers including residential development that no direct nor indirect impacts during construction activities will occur. There are no public rights of way (PRoW) that are located within the SSSI and there is no public access, therefore increased recreation is not considered likely.
- 4.2 No impacts on both Shaftsbury Green and Royston Chalk Pit LWSs are anticipated as a result of development. Both LWSs are suitably buffered and located far enough away that construction activities are unlikely to impact on their respective nature conservation interests. Whilst there is no formal PRoW located within Shaftsbury Green LWS, there is a PRoW adjacent to it and potential informal tracks within. The schemes provision of an extensive GI and footpath route around the perimeter of the scheme as well as formal PRoW within the immediate surrounding area will provide suitable alternative recreational spaces and as such any significant increase in recreation to the LWS is unlikely.

Habitats

- 4.3 The degree to which habitats receive consideration within the planning system relies on a number of mechanisms, including:
- Inclusion within a specific policy, for example veteran trees, ancient woodland and linear habitats within the National Planning Policy Framework (NPPF)⁸;
 - A non-statutory site designation (e.g. LWS);
 - Habitats considered as Habitats of Principal Importance for the conservation of biodiversity as listed within Section 41 of the NERC Act 2006; and
 - Habitats identified as being a Priority Habitat within the national and local Biodiversity Action Plan (Hertfordshire BAP).
- 4.4 The only habitat which was identified during the survey which falls within one of the above listed categories is plantation broadleaved woodland. Only the eastern woodland has been identified as meeting the requirements as a Habitat of Principal Importance for the conservation of biodiversity as listed within Section 41 of the NERC Act 2006 as 'Lowland Mixed Deciduous Woodland'. This area is shown on Magic Map as 'Priority Habitat Inventory – Deciduous Woodland'. No other areas of woodland on site, which includes along the northern site boundary and the small copse within the centre of the site have been shown on Magic Map and have been assessed as a S41 NERC habitat.
- 4.5 Previous phase 1 habitat surveys undertaken at the site between 2015 and 2020 identified that the vast majority of the site as being dominated by intensively managed arable land. Plantation

⁸ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

broadleaved woodland was present along the north and east, a small copse within the centre, a small area of neutral semi-improved grassland within the north, small area of tall ruderal vegetation and amenity grassland by the driveway. This updated report confirms that no material changes in habitats or their condition and management has occurred between previous ecological surveying and this updated assessment.

- 4.6 Habitat offering no/negligible ecological value included hardstanding, arable land and tall ruderal vegetation. Loss of these habitats will create a no/negligible impact to biodiversity.
- 4.7 Habitat of low or moderate ecological value at site level included neutral semi-improved grassland, amenity grassland (due to its calcareous substrate and calcareous indicator species) and the northern and copse plantation broadleaved woodland. Any loss of this habitat will be mitigated for within the site GI proposals.
- 4.8 Habitat identified as being of local level importance included the eastern plantation broadleaved woodland. Albeit from the minor width to be removed to facilitate an emergency access connection and footway connection, this woodland is retained as part of the development.
- 4.9 To avoid indirect impacts to retained woodland and trees during the construction period it is recommended that suitable protection is provided in line with BS 5837 Trees in Relation to Design, Demolition and Construction to Construction - Recommendations.
- 4.10 The scheme seeks to retain as much existing low to moderate habitat of ecological value as feasible. A small length of the northern woodland will be required to be removed in order to facilitate site access.
- 4.11 To mitigate for the loss of habitat, the landscape masterplan has included the establishment of a number of habitat throughout the site. This includes broadleaved trees planted throughout the development footprint within the streetscape and throughout the sites GI. Mixed native species scrub is proposed around several peripheral areas around the site boundary which will buffer the existing and offsite woodlands. Along with flowering amenity grassland, species rich chalk tolerant meadow grassland is proposed around the peripheries of the site and throughout the interior GI of the site. New hedgerow planting is also proposed.

Biodiversity Net Gain (BNG) Assessment (Appendix B)

- 4.12 The BNG assessment undertaken on the onsite land will result in:
 - A net loss to biodiversity of -3.84 habitat units, equating to a net loss to biodiversity of 12.59%;
 - A net gain to biodiversity of 0.32 hedgerow units.
- 4.13 The applicant has sought to maximise on-site habitat retention, provision and enhancements as much as possible within the GI/POS, however a 10% net gain to biodiversity for habitats has not been possible.
- 4.14 As a result of the net loss to biodiversity of 3.84 habitat units, in order for the scheme to achieve a 10% net gain to biodiversity, an additional 6.90 habitat units are required.
- 4.15 In order to satisfy habitat trading rules, a minimum of 0.26 woodland habitat units are required. The remaining 6.64 habitat units can be of any habitat.
- 4.16 In line with the biodiversity hierarchy, if the onsite land cannot achieve a 10% net gain and satisfy trading rules, a 10% net gain should be achieved by:

- If available, registering offsite land within the same ownership as the applicant ideally within the same LPA and either creating and/or enhancing habitat to the required habitat and number of habitat units required; or
- By offsite biodiversity credits through a 3rd party biodiversity credit provider ideally located within the same LPA;
- If the applicant cannot achieve on-site or off-site BNG, the applicant must buy statutory biodiversity credits from the government. This should be a last resort.

Fauna

- 4.17 Principal pieces of legislation protecting wild species are Part 1 of the Wildlife and Countryside Act 1981 (*as amended*) and the Conservation of Habitats & Species Regulations 2017 (*as amended*). The impact that this legislation has on the Planning system is outlined in ODPM 06/2005 Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.
- 4.18 The presence of protected species is a material consideration in any planning decision, it is essential that the presence or otherwise of protected species, and the extent to which they are impacted by proposals is established prior to planning permission being granted. Furthermore, where protected species are present and proposals may result in harm to the species or its habitat, steps should be taken to ensure the long-term protection of the species, such as through attaching appropriate planning conditions.
- 4.19 In addition to protected species, there are those that are otherwise of conservation merit, such as Species of Principal Importance for the purpose of conserving biodiversity under the NERC Act 2006. These are recognised in the NPPF, which advises that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying a set of principles including:
- If significant harm to biodiversity resulting from a development cannot be avoided....., adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.
- 4.20 The implications for the proposed development that various species identified from the desk study and field survey, or those that are otherwise thought reasonably likely to occur, are outlined below.

Bats

- 4.21 All UK species of bats and their roosts are afforded protected by the Conservation of Habitats & Species Regulations 2017 (*as amended*), making it illegal to deliberately disturb any such animal or damage/destroy a breeding site or roosting place of any such animal. Bats are also afforded full legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (*as amended*). Under this legislation it is illegal to recklessly or intentionally kill, injure or take a species of bat or recklessly or intentionally obstruct access to any place of shelter or protection or disturb any animal whilst they

are occupying such a place of shelter or protection. Some bat species, including soprano pipistrelle, noctule and brown long-eared bat are also Species of Principal Importance under the NERC Act.

Roost Assessment

- 4.22 A number of trees required to be removed to facilitate proposed development were identified to present features suitable to support roosting bats.
- 4.23 Further assessment of these trees in the form of aerial assessments did not identify the presence of roosting bats. As such, roosting bats have not been identified to pose a statutory constraint to proposed development.
- 4.24 It is recommended that a range of bat boxes are installed onto suitably retained trees and/or integrated into new dwellings.

Foraging/Commuting Habitat

- 4.25 Previous activity transect and automated static detector surveys undertaken at the site identified relatively low levels of bat activity utilising onsite habitats and dominated by common pipistrelle, with no Annex II species of bats were identified utilising the site. Given no material change in habitats or management of the site has occurred since previous surveys, it is unlikely that the value of the site to commuting or foraging bats has significantly changed.
- 4.26 The large intensively managed arable land provides a negligible value to for commuting and foraging bats. As such, loss of arable land would create a negligible impact to commuting and foraging bats. The plantation broadleaved woodlands within the site as well as those bordering and within the surrounding environment were assessed as providing suitable commuting and foraging habitat and connectivity, albeit in low levels as identified from previous survey work.
- 4.27 The loss of a small amount of woodland to facilitate site and emergency access is unlikely to result in significant effects to the local bat population. The provision of the new woodland buffer planting in the form of mixed scrub will however provide adequate compensation for the minor losses of the existing woodland. In addition to the provision of the landscape buffer the creation of 'hop over', at the main site access is recommended to avoid potential affects to foraging and commuting bats and will be established by broadleaved tree planting.
- 4.28 The retained plantation woodland and adjacent woodland will be buffered from development by GI, including meadow grassland and broadleaved tree planting. SuDS and swale habitat are further proposed. These habitats will provide a higher commuting and foraging value compared with the current arable baseline.
- 4.29 It is recommended that an appropriate sensitive lighting scheme is implemented to maintain dark corridors along retained and created habitat of the development. Where artificial lighting cannot be avoided the lighting scheme will be designed with reference to the Bat Conservation Trust and Institute of Lighting Professionals guidance⁹. Lighting considerations suitable for implementation during construction and/or for incorporation into the development to ensure minimal light spill from the site include:
- During the construction period no artificial lighting should be used at night in the vicinity of the onsite and perimeter woodlands;

⁹ Bat Conservation Trust & Institute of Lighting Professionals 2023. *Guidance Note 8: Bats and Artificial Lighting at Night*. Bats and the Built Environment Series.

- The lighting scheme should ensure lighting is directed to where it is needed, avoiding light spillage, particularly the retained trees, woodland, and new habitats including trees, hedgerows, SuDS habitat and grassland.
- The lighting scheme should incorporate LED luminaires as these have a sharp cut-off, lower intensity, good colour rendition and dimming capability. All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used;
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component;
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats;
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards;
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered;
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt;
- Security lighting on properties backing on to sensitive habitats such as hedgerows, trees or waterbodies will be low wattage (<70W)¹⁰ motion censored lights on short (1min) timers;
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites.

Birds

- 4.30 All wild bird species are protected while nesting by the Wildlife and Countryside Act 1981 (as amended). This legislation protects wild birds and their eggs from intentional harm, and makes it illegal to intentionally take, damage, or destroy a wild bird nest while it is in use or being built.
- 4.31 Previous breeding bird surveys undertaken at the site assessed the bird community as being considered to be small with a little over 20 species recorded, as well as all species considered to be breeding. The breeding bird community is regarded as being of Local importance.
- 4.32 Previous wintering bird surveys undertaken at the site identified an assemblage of 35 bird species using the site. All these species were considered common and widespread both locally and nationally, with only a small number of notable species present. Given this, it was assessed that the wintering bird assemblage of the Site is of Local value only.
- 4.33 Development proposals will result in the site no longer being suitable for skylark and yellowhammer. It was concluded however neither of these species were recorded breeding on site.
- 4.34 Given no material change in habitats or management of the site has occurred since previous surveys, it is unlikely that the value of the site to breeding and wintering birds has significantly changed.

¹⁰ Stone, E.L. 2013. *Bats and lighting: Overview of current evidence and mitigation*.

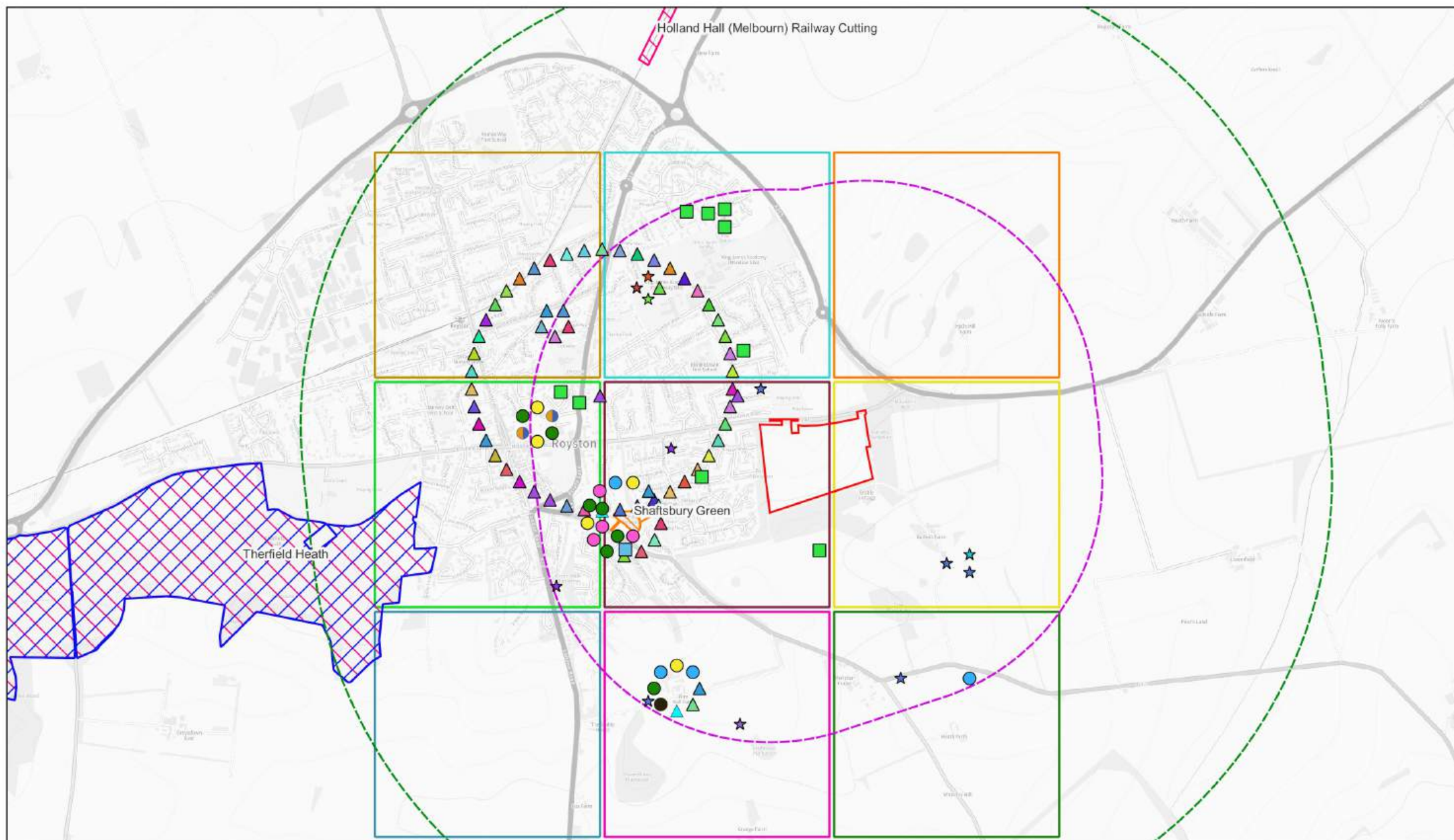
- 4.35 To avoid disturbance to nesting birds, **any wooded vegetation clearance should be undertaken prior to the bird-breeding season (i.e. avoiding March to September inclusive) to minimise the risk of disturbance to nesting birds. If this is not possible, habitats will be checked prior to removal by an experienced ecologist and if no nesting birds are identified, the vegetation removed and building demolished within 48 hours.** If active nests are identified, the nest site(s) will be left untouched and suitably buffered from works until all birds have fledged. Specific advice will be provided by the ecologist prior to undertaking the clearance.
- 4.36 As an enhancement, it is recommended that bird boxes are installed onto the W/N/E facing aspects of suitably retained trees and /or integrated into suitable aspects/walls of new dwellings depending on the species of birds and box specification. These should include a range of designs, including hole and open fronted boxes, suitable for use by a range of urban edge bird species.
- 4.37 The proposals aim to retain existing suitable woody breeding and foraging habitat where possible, including the retention the majority of woodland resource. The schemes proposals will further provide new broadleaved tree planting, mixed scrub, meadow grassland and SuDS habitat.
- 4.38 It was concluded that with the implementation of the above mitigation, the effect on breeding and wintering birds is predicted to be negligible during the construction phase and beneficial at the site level during the occupation phase.

Great Crested Newt

- 4.39 No suitable breeding habitat was present within a 500m radius of the site.
- 4.40 As such, GCN are highly unlikely to be present within the site. GCN are therefore not considered to pose a statutory constraint to development and further survey or mitigation with regards to GCN should not be proportionate.

Reptiles

- 4.41 All British reptiles are protected from killing and injury under the Wildlife and Countryside Act 1981 (as amended) and are listed as Species of Principal Importance for the conservation of biodiversity under Section 41 of the NERC Act. Public bodies, such as the Local Planning Authority therefore have a duty to have regard to the conservation of these species.
- 4.42 The site did not support a suitable matrix of habitats that could support a viable reptile population however, previous ecological reporting did acknowledge the possibility of a small number of individuals possibly utilising the site.
- 4.43 As such, it is recommended that clearance of suitable vegetation (arable field margins and neutral semi-improved grassland) should be cleared during mid-March to October under suitable weather conditions (<9°C, little wind, no rain), via directional strimming to 150mm above ground towards offsite retained habitat.
- 4.44 Habitat proposals will provide suitable commuting, foraging and sheltering habitat in the form of hedgerow, meadow grassland, SuDS and mixed scrub.



Species Records of 1km Accuracy

- TL3539 - Cinnabar, Grey Partridge, Linnet, Maple-seed Pigmy, Ring Ouzel, Stock Dove, Woodpigeon
- TL3540 - Alder Bent-wing, August Thorn, Beaded Chestnut, Blood-vein, Brambling, Brown-spot Pinion, Buff Ermine, Bullfinch, Centre-barred Sallow, Chalk Hill Blue, Cinnabar, Corn Bunting, Dot Moth, Downland Bell, Dunnock, Fieldfare, Ghost Moth, Greenfinch, Grey Partridge, Grey Plover, Grey Wagtail, House Martin, House Sparrow, Kestrel, Knot Grass, Lapwing, Large Clouded Knot-horn, Large Nutmeg, Latticed Heath, Linnet, Maple Slender, Marsh Harrier, Meadow Pipit, Mottled Rustic, Mouse Moth, Pallid Harrier, Powdered Knot-horn, Red Kite, Redwing, Reed Bunting, Ring Ouzel, Rook, Rosy Minor, Rustic, Shaded Broad-bar, Small Emerald, Small Heath, Small Phoenix, Small Ranunculus, Small Square-spot, Song Thrush, Spotted Flycatcher, Sprawler, Starling, Stock Dove, Swift, Tawny Owl, Webb's Wainscot, Wheatear, White Ermine, Whitethroat, Willow Warbler, Woodpigeon, Wren, Yellowhammer
- TL3541 - Barn Owl, Black-headed Gull, Dunnock, Greenfinch, House Sparrow, Sparrowhawk, Starling, Swift, Woodpigeon
- TL3639 - Black-headed Gull
- TL3640 - August Thorn, Beaded Chestnut, Blood-vein, Brindled Plume, Broom Moth, Brown-dotted Clothes Moth, Buckthorn Bent-wing, Buff Ermine, Centre-barred Sallow, Cinnabar, Deep-brown Dart, Dingy Knot-horn, Dot Moth, Dotted Rustic, Double Dart, Dusky-lemon Sallow, Elm Smudge, Garden Dart, Green-brindled Crescent, Grey Dagger, Hart's-tongue Smut, Hedge Rustic, Hook-tipped Grass-veneer, Knot Grass, Lackey, Large Nutmeg, Large Wainscot, Latticed Heath, Maple Slender, Mottled Rustic, Mouse Moth, Mullein Wave, Northern Drab, Pale Water-veneer, Pine Cosmet, Powdered Quaker, Puss Moth, Reed Veneer, Rosy Minor, Rosy Rustic, Rustic, Scarce Rose Bell, Scarce Tissue, Shaded Broad-bar, Small Emerald, Small Phoenix, Small Ranunculus, Spindle Knot-horn, Sprawler, Square-spot Drill, Straw Obscure, Tawny Shears, Toadflax Brocade, Wainscot Neb, Waste Grass-veneer, White Ermine, White Satin Moth, White-letter Hairstreak, Wood Carpet
- TL3641 - Barn Owl, Black Redstart, Black-headed Gull, Brambling, Bullfinch, Common Gull, Corn Bunting, Curlew, Dunnock, Fieldfare, Great Black-backed Gull, Great Spotted Woodpecker, Great White Egret, Greenfinch, Grey Partridge, Grey Plover, Grey Wagtail, Hen Harrier, Hobby, House Martin, House Sparrow, Kestrel, Lapwing, Lesser Black-backed Gull, Lesser Spotted Woodpecker, Linnet, Marsh Harrier, Meadow Pipit, Mistle Thrush, Nightingale, Peregrine, Quail, Red Kite, Redstart, Redwing, Reed Bunting, Ring Ouzel, Rook, Sedge Warbler, Short-eared Owl, Skylark, Song Thrush, Sparrowhawk, Spotted Flycatcher, Starling, Swift, Tawny Owl, Tree Sparrow, Turtle Dove, Wheatear, Whitethroat, Willow Warbler, Woodpigeon, Wren, Yellow Wagtail, Yellowhammer, Yellow-legged Gull
- TL3739 - Brassy Long-horn, Grey Partridge, Kestrel, Linnet, Sulphur Pearl, Yellowhammer
- TL3740 - Four-spot Lift, Small Heath
- TL3741 - Honey-buzzard

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Key

- Site Boundary
- 1km Site Boundary Buffer
- 2km Site Boundary Buffer
- Site of Special Scientific Interest (SSSI)
- Local Wildlife Site (LWS)
- Local Nature Reserve (LNR)

Protected/Notable Species within 1km

Bats

- Brown Long-eared Bat
- Daubenton's Bat
- Pipistrelle Bat species
- Common Pipistrelle
- Natterer's Bat
- Western Barbastelle

Birds

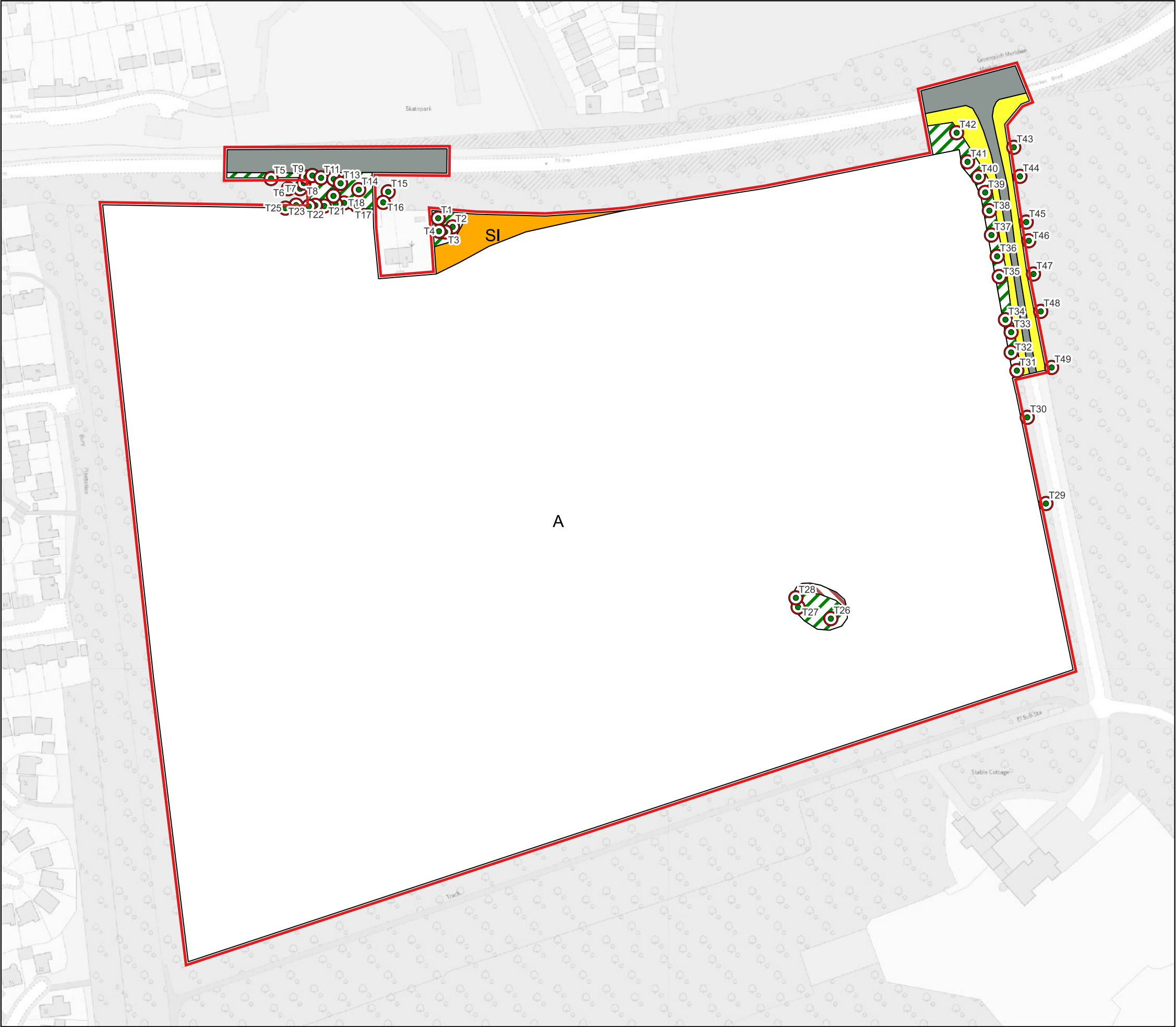
- Barn Owl
- Black Redstart
- Black-tailed Godwit
- Brambling
- Bullfinch
- Corn Bunting
- Crossbill
- Dunnock
- Fieldfare
- Firecrest
- Great White Egret
- Greenfinch
- Grey Partridge
- Grey Plover
- Hen Harrier
- Hobby
- House Sparrow
- Kestrel
- Lapwing
- Lesser Black-backed Gull
- Linnet
- Marsh Harrier
- Mistle Thrush
- Nightingale
- Peregrine
- Quail
- Red Kite
- Redwing
- Reed Bunting
- Ring Ouzel
- Rook
- Shelduck
- Short-eared Owl
- Skylark
- Song Thrush
- Sparrowhawk
- Spotted Flycatcher
- Starling
- Stock Dove
- Swift
- Tawny Owl
- Turtle Dove
- Wheatear
- Whitethroat
- Willow Warbler
- Woodpigeon
- Wren
- Yellow Wagtail
- Yellowhammer

Invertebrates

- Dark Green Fritillary
- Essex Skipper
- Garden Tiger
- Roman Snail
- Small Heath
- Violet Ground Beetle
- White-letter Hairstreak

Mammals

- Chinese Muntjac
- Hedgehog

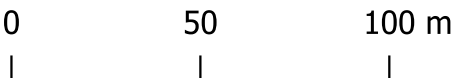


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Key:

- Site Boundary
- Broadleaved woodland - plantation
- Built Environment: Buildings/hardstanding
- Cultivated/disturbed land - amenity grassland
- Cultivated/disturbed land - arable
- Neutral grassland - semi-improved
- Other tall herb and fern - ruderal
- Tree with bat potential



client
Vistry Group
project
**Land Surrounding Burloes Cottages,
Newmarket Road, Royston**
drawing title
PHASE 1 HABITAT PLAN

scale @ A3
1:2,000
drawn
MPG/KDG
issue date
15/10/2025

drawing / figure number
Figure 2
rev
-

APPENDIX A: BOTANICAL SPECIES LIST

Abundance is described on the DAFOR scale.

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare, LD = Locally Dominant, LA = Locally Abundant, LF = Locally Frequent, LO = Locally Occasional, LR = Locally Rare

Arable

Common Name	Scientific Name	DAFOR
Cock's-foot	<i>Dactylis glomerata</i>	R
Creeping bent	<i>Agrostis stolonifera</i>	R
Mint Sp.	<i>Mentha</i>	R
Red fescue	<i>Festuca rubra</i>	R
Unidentified arable crop	-	D

Neutral Semi-Improved Grassland

Common Name	Scientific Name	DAFOR
Barren brome	<i>Bromus sterilis</i>	A
Black-grass	<i>Alopecurus myosuroides</i>	R
Bramble	<i>Rubus fruticosus</i>	O
Bristly oxtongue	<i>Helminthotheca echinoides</i>	R
Cleavers	<i>Galium aparine</i>	F
Cock's-foot	<i>Dactylis glomerata</i>	R
Common couch	<i>Elymus repens</i>	O
Crane's-bill species	<i>Geranium sp.</i>	R
Creeping thistle	<i>Cirsium arvense</i>	O
Crested dogs tail	<i>Cynosurus cristatus</i>	R
Dandelion	<i>Taraxacum officinale</i>	O
Field sow thistle	<i>Sonchus arvensis</i>	R
Garlic mustard	<i>Alliaria petiolata</i>	F
Herb robert	<i>Geranium robertianum</i>	O
Hoary willowherb	<i>Epilobium parviflorum</i>	O
Poppy	<i>Papaveroidae</i>	O
Ribwort plantain	<i>Plantago lanceolata</i>	R
Rough charvil	<i>Chaerophyllum temulum</i>	R
Smooth hawksbeard	<i>Crepis capillaris</i>	O
Smooth meadow-grass	<i>Poa pratensis</i>	O
Tall fescue	<i>Festuca arundinacea</i>	R
Wetted thistle	<i>Carduus crispus</i>	R
Willow species	<i>Salix sp.</i>	R
Yorkshire-fog	<i>Holcus lanatus</i>	R

Northern Plantation Broadleaved Woodland

Common Name	Scientific Name	DAFOR
Ash	<i>Fraxinus excelsior</i>	F
Beech	<i>Fagus sylvatica</i>	F
Blackthorn	<i>Prunus spinosa</i>	O
Bramble	<i>Rubus fruticosus</i>	O
Cleavers	<i>Galium aparine</i>	O
Dog rose	<i>Rosa canina</i>	R
Elder	<i>Sambucus nigra</i>	O
Elm	<i>Ulmus procera</i>	R
Garlic mustard	<i>Alliaria petiolata</i>	A

Hawthorn	<i>Crataegus monogyna</i>	O
Herb robert	<i>Geranium robertianum</i>	O
Holly	<i>Ilex sp.</i>	R
Ivy	<i>Hedera sp.</i>	A
Privet species	<i>Ligustrum sp.</i>	R
Sycamore	<i>Acer pseudoplatanus</i>	F
Wild cherry	<i>Prunus avium</i>	R
Wood avens	<i>Geum urbanum</i>	R
Wood false-brome	<i>Brachypodium sylvaticum</i>	F

Planation Broadleaved Woodland Copse

Common Name	Scientific Name	DAFOR
Barren brome	<i>Bromus sterilis</i>	F
Beech	<i>Fagus sylvatica</i>	O
Black-horehound	<i>Ballota nigra</i>	F
Cleavers	<i>Galium aparine</i>	F
Common couch	<i>Elymus repens</i>	O
Common nettle	<i>Urtica dioica</i>	A
Cow parsley	<i>Anthriscus sylvestris</i>	F
Dog rose	<i>Rosa canina</i>	O
Elder	<i>Sambucus nigra</i>	O
Garlic mustard	<i>Alliaria petiolata</i>	A
Sycamore	<i>Acer pseudoplatanus</i>	A
White bryony	<i>Bryonia dioica</i>	R

Eastern Plantation Broadleaved Woodland

Common Name	Scientific Name	DAFOR
Beech	<i>Fagus sylvatica</i>	A
Hawthorn	<i>Crataegus monogyna</i>	O
Holly	<i>Ilex sp.</i>	O
Ivy	<i>Hedera sp.</i>	F
Laurel species	<i>Laurus sp.</i>	R
Mountain grape	<i>Mahonia aquifolium</i>	O
Privet species	<i>Ligustrum sp.</i>	A
Sanicle	<i>Sanicula europaea</i>	F
Scots pine	<i>Pinus sylvestris</i>	R
Sycamore	<i>Acer pseudoplatanus</i>	O
Violet Sp.	<i>Viola sp.</i>	F
Yew	<i>Taxus baccata</i>	R

Amenity Grassland

Common Name	Scientific Name	DAFOR
Agrimony	<i>Agrimonia eupatoria</i>	R
Autumn hawkbit	<i>Scorzoneroides autumnalis</i>	F
Burnet saxifrage	<i>Pimpinella major</i>	R
Dandelion	<i>Taraxacum officinale</i>	R
Field scabious	<i>Knautia arvensis</i>	R
Greater plantain	<i>Plantago major</i>	O
Ground-ivy	<i>Glechoma hederacea</i>	R
Hawthorn	<i>Crataegus monogyna</i>	R
Hedge bedstraw	<i>Galium mollugo</i>	R
Ribwort plantain	<i>Plantago lanceolata</i>	O
Rowan	<i>Sorbus aucuparia</i>	R

Self-heal	<i>Prunella vulgaris</i>	R
Wall hawkweed	<i>Hieracium murorum</i>	R
Wood avens	<i>Geum urbanum</i>	R
Wood meadow grass	<i>Poa nemoralis</i>	F
Wood ruff	<i>Galium odoratum</i>	R
Yarrow	<i>Achillea millefolium</i>	R

APPENDIX B: BIODIVERSITY NET GAIN (BNG) ASSESSMENT



October 2025

Appendix B - Biodiversity Net Gain (BNG) Assessment

12063 - Land Surrounding Burloes Cottages, Newmarket Road, Royston

1.0 INTRODUCTION

- 1.0 FPCR Environment and Design Ltd. were commissioned by Vistry Group to undertake a biodiversity net gain (BNG) assessment of the landscape masterplan (ROY01-LLA-ZZ-ZZ-DR-L-0001_P04 Landscape Masterplan) for the proposed development of Land Surrounding Burloes Cottages, Newmarket Road, Royston.

Site Proposals

- 1.1 The site is an allocated site for residential development of 300 homes under Policy RY10 of the adopted 2011-2031 North Hertfordshire Local Plan¹.
- 1.2 Proposals include the hybrid application for residential development of up to 325 dwellings comprising (a) full planning application for Phase 1 comprising 106 dwellings and associated infrastructure including access from Newmarket Road, emergency and pedestrian/cycle access from Burloes Hall Drive, internal highways, public open space, landscaping and drainage and b) outline application for up to 219 dwellings and associated infrastructure with all matters reserved apart from primary means of access and emergency and pedestrian/cycle access from Burloes Hall Drive..

2.0 METHODOLOGY

- 2.0 The update BNG calculations completed on the scheme have been calculated in accordance with DEFRA Statutory biodiversity metric calculation tool.
- 2.1 The site boundary, results of the habitat survey undertaken in 2023 and the above-mentioned illustrative framework and landscape masterplan were used for this assessment.
- 2.2 The development site was mapped and divided into existing habitat criteria. Habitats were defined using the UK Habitat Classification, with further information providing

¹ North Hertfordshire Local Plan 2011 – 2031. North Herts Council (November 2022).

habitat area, distinctiveness and condition, which are used to calculate the value of each habitat.

- 2.3 The condition assessments were undertaken using the relevant Condition Assessment Criteria within the Statutory biodiversity metric condition assessments excel spreadsheet.

3.0 RESULTS

Existing Baseline Habitats

- 3.0 The biodiversity units for each habitat within the red line on the site have been calculated and are presented in Table 1.

Table 1: Biodiversity Units: Existing On-Site Habitats and Conditions

BIA Baseline Habitat Type	Area (ha)	Condition	Biodiversity Units	Biodiversity Units Retained	Biodiversity Units Enhanced	Biodiversity Units Lost
Cereal crops	14.0753	N/A	28.15	0	0	28.16
Other neutral grassland	0.2369	Poor	0.95	0.1345	0	0.41
Tall forbs	0.0126	Poor	0.03	0	0	0.03
Developed land; sealed surface	0.2758	N/A	0	0.2737	0	0
Other woodland, broadleaved	0.1473	Moderate	1.18	0.1145	0	0.26
Other woodland, broadleaved	0.0597	Poor	0.24	0.0597	0	0
Totals:	14.81	-	30.54	0.60	0	28.85

Please note there may be minor discrepancies (rounding errors) between the columns and the totals, however, the numbers duplicate those presented within the matrix calculator.

Proposed Habitats

- 3.1 Table 2 outlines the proposed habitats as well as the key habitats to be created on site and provides the evidence for the condition scores they receive within the metric calculation.

Table 2: Biodiversity Units: Proposed Created On-site Habitats and Target Conditions

BIA Created Habitat Type	Area (ha)	Condition	Biodiversity Units
Modified grassland	0.8232	Good	3.85
Modified grassland	0.2846	Poor	0.55
Other neutral grassland	1.4831	Poor	5.52
Mixed scrub	0.4708	Moderate	3.15
Mixed Scrub	0.0292	Poor	0.11
Developed land; sealed surface	6.6167	N/A	0
Introduced shrub	0.0426	N/A	0.08
Sustainable drainage system	0.0959	Moderate	0.23
Vegetated garden	4.3791	N/A	8.45
Urban tree	0.7369	Moderate	2.25

BIA Created Habitat Type	Area (ha)	Condition	Biodiversity Units
Urban tree	0.285		0.80
Totals (incl. urban trees):	15.25		25.00

Please note there may be minor discrepancies (rounding errors) between the columns and the totals, however, the numbers duplicate those presented within the matrix calculator.

- 3.2 Table 3 outlines the proposed hedgerows to be created on site and provides the evidence for the condition scores they receive within the metric calculation.

Table 3: Biodiversity Units: Proposed Created On-site Hedgerows and Target Conditions

BIA Created Habitat Type	Length (km)	Condition	Biodiversity Units
Non-native and ornamental hedgerow	0.045	Poor	0.04
Native hedgerow	0.145	Poor	0.28
Totals:	0.19	-	0.32

Please note there may be minor discrepancies (rounding errors) between the columns and the totals, however, the numbers duplicate those presented within the matrix calculator.

- 3.3 The BNG assessment undertaken on the onsite land will result in:
- A net loss to biodiversity of -3.84 habitat units, equating to a net loss to biodiversity of 12.59%;
 - A net gain to biodiversity of 0.32 hedgerow units.
- 3.4 The applicant has sought to maximise on-site habitat retention, provision and enhancements as much as possible within the GI/POS, however a 10% net gain to biodiversity for habitats has not been possible.
- 3.5 As a result of the net loss to biodiversity of 3.84 habitat units, in order for the scheme to achieve a 10% net gain to biodiversity, an additional 6.90 habitat units are required.
- 3.6 In order to satisfy habitat trading rules, a minimum of 0.26 woodland habitat units are required. The remaining 6.64 habitat units can be of any habitat.
- 3.7 In line with the biodiversity hierarchy, if the onsite land cannot achieve a 10% net gain and satisfy trading rules, a 10% net gain should be achieved by:
- If available, registering offsite land within the same ownership as the applicant ideally within the same LPA and either creating and/or enhancing habitat to the required habitat and number of habitat units required; or
 - By offsite biodiversity credits through a 3rd party biodiversity credit provider ideally located within the same LPA;
 - If the applicant cannot achieve on-site or off-site BNG, the applicant must buy statutory biodiversity credits from the government. This should be a last resort.

Headline Results

Scroll down for final results ▲

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On-site baseline	Area habitat units	30.54
	Hedgerow units	0.00
	Watercourse units	0.00

On-site post-intervention (including habitat retention, creation & enhancement)	Area habitat units	26.70
	Hedgerow units	0.32
	Watercourse units	0.00

On-site net change (units & percentage)	Area habitat units	-3.84	-12.59%
	Hedgerow units	0.32	N/A
	Watercourse units	0.00	0.00%

On-site net gain is less than target set ▲
Zero baseline units - % cannot be calculated

Off-site baseline	Area habitat units	0.00
	Hedgerow units	0.00
	Watercourse units	0.00

Off-site post-intervention (including habitat retention, creation & enhancement)	Area habitat units	0.00
	Hedgerow units	0.00
	Watercourse units	0.00

Off-site net change (units & percentage)	Area habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%

Combined net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-3.84
	Hedgerow units	0.32
	Watercourse units	0.00

Spatial risk multiplier (SRM) deductions	Area habitat units	0.00
	Hedgerow units	0.00
	Watercourse units	0.00

FINAL RESULTS

Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-3.84
	Hedgerow units	0.32
	Watercourse units	0.00

Total net % change (including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-12.59%
	Hedgerow units	N/A
	Watercourse units	0.00%

Total net gain achieved is less than target set ▲

0 baseline units - % cannot be calculated

Trading rules satisfied?	No - Check Trading Summaries ▲
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Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Area habitat units	10.00%	30.54	33.59	6.90
Hedgerow units	10.00%	0.00	0.00	0.00
Watercourse units	10.00%	0.00	0.00	0.00

No additional hedgerow units required to meet target ✓

No additional watercourse units required to meet target ✓

Input errors/rule breaks present in metric ▲

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Trading summary hedgerows

Trading summary watercourses

Trading Summary		
Distinctiveness Group	Trading Rule	Trading Satisfied?
Very High	Same habitat required – bespoke compensation option Δ	Yes ✓
High	Same habitat required =	Yes ✓
Medium	Same broad habitat or a higher distinctiveness habitat required (2)	No ▲
Low	Same distinctiveness or better habitat required ≥	No ▲

Very High Distinctiveness					
Habitat group	Group	On-site unit change	Off-site unit change	Project-wide unit change	Unit losses
Grassland - Lowland dry acid grassland	Grassland	0.00	0.00	0.00	
Grassland - Lowland meadows	Grassland	0.00	0.00	0.00	
Grassland - Upland hay meadows	Grassland	0.00	0.00	0.00	
Heathland and shrub - Mountain heaths and willow scrub	Heathland and shrub	0.00	0.00	0.00	
Lakes - Aquifer fed naturally fluctuating water bodies	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Calaminarian grasslands	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Limestone pavement	Sparsely vegetated land	0.00	0.00	0.00	
Wetland - Blanket bog	Wetland	0.00	0.00	0.00	
Wetland - Depressions on peat substrates (H7150)	Wetland	0.00	0.00	0.00	
Wetland - Fens (upland and lowland)	Wetland	0.00	0.00	0.00	
Wetland - Lowland raised bog	Wetland	0.00	0.00	0.00	
Wetland - Oceanic valley mire(1) (D2.1)	Wetland	0.00	0.00	0.00	
Wetland - Purple moor grass and rush pastures	Wetland	0.00	0.00	0.00	
Wetland - Transition mires and quaking bogs (H7140)	Wetland	0.00	0.00	0.00	
Woodland and forest - Wood-pasture and parkland	Woodland and forest	0.00	0.00	0.00	
Rocky shore - High energy littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Rocky shore - Moderate energy littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Rocky shore - Low energy littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Rocky shore - Features of littoral rock - on peat, clay or chalk	Rocky shore	0.00	0.00	0.00	
Intertidal sediment - Littoral seagrass on peat, clay or chalk	Intertidal sediment	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00

High Distinctiveness					
Habitat group	Group	On-site unit change	Off-site unit change	Project-wide unit change	Losses not yet accounted for
Grassland - Traditional orchards	Grassland	0.00	0.00	0.00	
Grassland - Floodplain wetland mosaic and CFGM	Grassland	0.00	0.00	0.00	
Grassland - Lowland calcareous grassland	Grassland	0.00	0.00	0.00	
Grassland - Tall herb communities (H6430)	Grassland	0.00	0.00	0.00	
Grassland - Upland calcareous grassland	Grassland	0.00	0.00	0.00	
Heathland and shrub - Lowland Heathland	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Dunes with sea buckthorn (H2160)	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Upland heathland	Heathland and shrub	0.00	0.00	0.00	
Lakes - High alkalinity lakes	Lakes	0.00	0.00	0.00	
Lakes - Low alkalinity lakes	Lakes	0.00	0.00	0.00	
Lakes - Marl lakes	Lakes	0.00	0.00	0.00	
Lakes - Moderate alkalinity lakes	Lakes	0.00	0.00	0.00	
Lakes - Peat lakes	Lakes	0.00	0.00	0.00	
Lakes - Ponds (priority habitat)	Lakes	0.00	0.00	0.00	
Lakes - Temporary lakes ponds and pools (H3170)	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Coastal sand dunes	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Coastal vegetated shingle	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Inland rock outcrop and scree habitats	Sparsely vegetated land	0.00	0.00	0.00	
Sparsely vegetated land - Maritime cliff and slopes	Sparsely vegetated land	0.00	0.00	0.00	
Urban - Open mosaic habitats on previously developed land	Urban	0.00	0.00	0.00	
Wetland - Reedbeds	Wetland	0.00	0.00	0.00	
Woodland and forest - Felled/Replacement for felled woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Lowland beech and yew woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Lowland mixed deciduous woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Native pine woodlands	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Upland birchwoods	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Upland mixed ashwoods	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Upland oakwood	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Wet woodland	Woodland and forest	0.00	0.00	0.00	
Coastal lagoons - Coastal lagoons	Coastal lagoons	0.00	0.00	0.00	
Rocky shore - High energy littoral rock	Rocky shore	0.00	0.00	0.00	
Rocky shore - Moderate energy littoral rock	Rocky shore	0.00	0.00	0.00	
Rocky shore - Low energy littoral rock	Rocky shore	0.00	0.00	0.00	
Rocky shore - Features of littoral rock	Rocky shore	0.00	0.00	0.00	
Intertidal sediment - Littoral mud	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral mixed sediments	Intertidal sediment	0.00	0.00	0.00	
Coastal saltmarsh - Saltmarshes and saline reedbeds	Coastal saltmarsh	0.00	0.00	0.00	
Intertidal sediment - Littoral biogenic reefs - Mussels	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral biogenic reefs - Sabellaria	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Features of littoral sediment	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral muddy sand	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral seagrass	Intertidal sediment	0.00	0.00	0.00	
		0.00	0.00	0.00	0.00

Medium Distinctiveness					
Habitat group	Group	On-site unit change	Off-site unit change	Project wide unit change	Cumulative broad habitat change
Cropland - Arable field margins cultivated annually	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins game bird mix	Cropland	0.00	0.00	0.00	0.00
Cropland - Arable field margins pollen and nectar	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins tussocky	Cropland	0.00	0.00	0.00	
Grassland - Other lowland acid grassland	Grassland	0.00	0.00	0.00	
Grassland - Other neutral grassland	Grassland	5.11	0.00	5.11	5.11 ✓
Grassland - Upland acid grassland	Grassland	0.00	0.00	0.00	
Heathland and shrub - Blackthorn scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Bramble scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Gorse scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hawthorn scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Willow scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hazel scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Mixed scrub	Heathland and shrub	3.26	0.00	3.26	3.26 ✓
Lakes - Ponds (non-priority habitat)	Lakes	0.00	0.00	0.00	0.00
Lakes - Reservoirs	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Other inland rock and scree	Sparsely vegetated land	0.00	0.00	0.00	0.00
Urban - Cemeteries and churchyards	Urban	0.00	0.00	0.00	0.00
Urban - Biodiverse green roof	Urban	0.00	0.00	0.00	
Individual trees - Urban tree	Individual trees	3.05	0.00	3.05	3.05 ✓
Individual trees - Rural tree	Individual trees	0.00	0.00	0.00	
Woodland and forest - Other Scots pine woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Other woodland broadleaved	Woodland and forest	-0.26	0.00	-0.26	-0.26 ▲
Woodland and forest - Other woodland mixed	Woodland and forest	0.00	0.00	0.00	
Intertidal sediment - Littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00	
Intertidal sediment - Littoral sand	Intertidal sediment	0.00	0.00	0.00	0.00
Intertidal hard structures - Artificial hard structures with integrated greening of grey infrastructure (IGGI)	Intertidal hard structures	0.00	0.00	0.00	
		11.17	0.00	11.17	

Low Distinctiveness				
Habitat group	Group	On-site unit change	Off-site unit change	Project wide unit change
Cropland - Cereal crops	Cropland	-28.15	0.00	-28.15 ▲
Cropland - Horticulture	Cropland	0.00	0.00	0.00
Cropland - Intensive orchards	Cropland	0.00	0.00	0.00
Cropland - Non-cereal crops	Cropland	0.00	0.00	0.00
Cropland - Temporary grass and clover leys	Cropland	0.00	0.00	0.00
Cropland - Winter stubble	Cropland	0.00	0.00	0.00
Grassland - Modified grassland	Grassland	4.40	0.00	4.40 ✓
Grassland - Bracken	Grassland	0.00	0.00	0.00
Heathland and shrub - Rhododendron scrub	Heathland and shrub	0.00	0.00	0.00
Lakes - Ornamental lake or pond	Lakes	0.00	0.00	0.00
Sparsely vegetated land - Ruderal/ephemeral	Sparsely vegetated land	0.00	0.00	0.00
Sparsely vegetated land - Tall forbs	Sparsely vegetated land	-0.03	0.00	-0.03 ▲
Urban - Biowale	Urban	0.00	0.00	0.00
Urban - Bare ground	Urban	0.00	0.00	0.00
Urban - Alciments	Urban	0.00	0.00	0.00
Urban - Facade-bound green wall	Urban	0.00	0.00	0.00
Urban - Ground based green wall	Urban	0.00	0.00	0.00
Urban - Ground level planters	Urban	0.00	0.00	0.00
Urban - Other green roof	Urban	0.00	0.00	0.00
Urban - Intensive green roof	Urban	0.00	0.00	0.00
Urban - Introduced shrub	Urban	0.08	0.00	0.08 ✓
Urban - Rain garden	Urban	0.00	0.00	0.00
Urban - Actively worked sand pit/quarry or open cast mine	Urban	0.00	0.00	0.00
Urban - Sustainable drainage system	Urban	0.23	0.00	0.23 ✓
Urban - Vacant or derelict land	Urban	0.00	0.00	0.00
Urban - Vegetated garden	Urban	8.45	0.00	8.45 ✓
Woodland and forest - Other coniferous woodland	Woodland and forest	0.00	0.00	0.00
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds	Coastal saltmarsh	0.00	0.00	0.00
Intertidal sediment - Artificial littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mud	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral muddy sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mixed sediments	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral seagrass	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral biogenic reefs	Intertidal sediment	0.00	0.00	0.00
Intertidal hard structures - Artificial hard structures	Intertidal hard structures	0.00	0.00	0.00
Intertidal hard structures - Artificial features of hard structures	Intertidal hard structures	0.00	0.00	0.00
Heathland and shrub - Other sea buckthorn scrub	Heathland and shrub	0.00	0.00	0.00
		-18.01	0.00	-18.01

Very High Distinctiveness Summary	
Very High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
Remaining losses; Like for like not satisfied	0.00

High Distinctiveness Summary	
High Distinctiveness Units available to offset lower distinctiveness deficit	0.00
Remaining losses; Like for like not satisfied	0.00

Medium Distinctiveness Summary	
Medium Distinctiveness Units available to offset lower distinctiveness deficit	11.43 ✓
Medium Distinctiveness broad habitat losses to be offset by trading up	-0.26 ▲
Medium Distinctiveness Unit deficit (required to meet trading rules)	-0.26 ▲

Low Distinctiveness Summary	
Units available to offset Low Distinctiveness deficit	11.17 ✓
Low Distinctiveness net change in units	-15.01 ▲
Cumulative surplus of units	-3.84 ▲

Project Name: Land Surrounding Burloes Cottages Newmarket Road Royston

A-1 On-Site Habitat Baseline

Condense / Show Columns

Condense / Show Rows

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Area habitat summary	
Total Net Unit Change	-3.84
Total Net % Change	-12.86%
Trading Rules Satisfied	No - check trading summaries ▲

Existing area habitats					Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline
Ref	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units
1	Cropland	Cereal crops	No	14.0753	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	28.15
2	Grassland	Other neutral grassland	No	0.2369	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (2)	0.95
3	Sparsely vegetated land	Tall forbs	No	0.0126	Low	Poor	Area/compensation not in local strategy/ no local strategy	Same distinctiveness or better habitat required ≥	0.03
4	Urban	Developed land; sealed surface	No	0.2758	V Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Compensation Not Required	0.00
5	Woodland and forest	Other woodland; broadleaved	No	0.1473	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (2)	1.18
6	Woodland and forest	Other woodland; broadleaved	No	0.0597	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat required (2)	0.24
7									
8									
9									
10									
11									
				Total habitat area	14.81				
				Site Area (Excluding area of individual trees, green walls, intertidal hard structures)	14.81				

ame: Land Surrounding Burloes Cottages Newmarket Road Royston HertfordshireMap Ref

A-2 On-Site Habitat Creation

Condense / Show ColumnsCondense / Show Rows

Main Menu

Area habitat summary	
Total Net Unit Change	-3.84
Total Net % Change	-12.59%
Trading Rules Satisfied	No - check trading summaries ▲
Area Check	Area Acceptable ✓

	Post intervention habitats															
Ref	Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty		Habitat units delivered	Comments				
				Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation	User comments		Planning authority comments	Habitat reference number			
1	Grassland	Modified grassland	0.8232	Low	Good	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	7	Low	3.85						
2	Grassland	Modified grassland	0.2846	Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.55						
3	Grassland	Other neutral grassland	1.4831	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	2	Low	5.52						
4	Heathland and shrub	Mixed scrub	0.4708	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	5	Low	3.15						
5	Heathland and shrub	Mixed scrub	0.0292	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.11						
6	Urban	Developed land; sealed surface	6.6167	V.Low	N/A - Other	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	0	Low	0.00						
7	Urban	Introduced shrub	0.0426	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.08						
8	Urban	Sustainable drainage system	0.0959	Low	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	3	Medium	0.23						
9	Urban	Vegetated garden	4.3791	Low	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	8.45						
10	Individual trees	Urban tree	0.0529	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	27	Low	0.16						
11	Individual trees	Urban tree	0.684	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	27	Low	2.09						
12	Individual trees	Urban tree	0.0122	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	10	Low	0.03						
13	Individual trees	Urban tree	0.2728	Medium	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	10	Low	0.76						
14																
15																
16																
17																
18																
		Total habitat area	15.25											25.00		

land Surrounding Burloes Cottages Newmarket Road Royston Hertfordshire

M

B-2 On-Site Hedge Creation

Condense / Show Columns

Condense / Show Rows

Main Menu

Hedgerow summary	
Total Net Unit Change	0.32
Total Net % Change	N/A
Trading Rules Satisfied	Yes ✓

		Proposed habitats		Distinctiveness	Condition	Strategic significance	Temporal multiplier		Difficulty risk multipliers	Hedge units delivered	Comments		
Ref	New hedge number	Habitat type	Length (km)	Distinctiveness	Condition	Strategic significance	Standard or adjusted time to target condition	Final time to target condition (years)	Final difficulty of creation		User comments	Planning authority comments	Habitat reference number
1		Native hedgerow	0.145	Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.28			
2		Non-native and ornamental hedgerow	0.045	V.Low	Poor	Area/compensation not in local strategy/ no local strategy	Standard time to target condition applied	1	Low	0.04			
3													
4													
5													
6													
7													
			0.19							0.32			



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Key:

 **Red Line Boundary**

Baseline Habitats:

 **Cereal crops**

 **Developed land; sealed surface**

 **Other neutral grassland**

 **Other woodland; broadleaved**

 **Tall forbs**





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Key:

 **Red Line Boundary**

Proposed Habitats:

-  **Developed land; sealed surface**
-  **Introduced shrub**
-  **Mixed scrub**
-  **Modified grassland**
-  **Other neutral grassland**
-  **Other woodland; broadleaved**
-  **Sustainable drainage system**
-  **Vegetated garden**

Proposed Individuals Trees:

 **Proposed Small Urban Tree**

Proposed Hedgerows:

-  **Non-native and ornamental hedgerow**
-  **Native hedgerow**



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Key:

 **Red Line Boundary**

Habitat Retention

 **Retained**

 **Lost**

Individual tree Retention

 **Created**

Hedgerow Retention

 **Created**





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Key:

 **Red Line Boundary**

Baseline Habitat Condition:

 **Moderate**

 **Poor**

 **N/A - Other**

 **Condition Assessment N/A**

Baseline Habitat Distinctiveness:

 **Medium**

 **Low**

 **V.Low**



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Key:

 **Red Line Boundary**

HABITATS:

Proposed Habitat Condition:

 **Good**

 **Moderate**

 **Poor**

 **N/A - Other**

 **Condition Assessment N/A**

Proposed Habitat Distinctiveness:

 **Medium**

 **Low**

 **V.Low**

INDIVIDUAL TREES:

Proposed Individual tree Condition:

 **Poor**

 **Moderate**

Proposed Individual Distinctiveness:

 **Medium**

HEDGEROWS:

Proposed Hedgerow Condition:

 **Poor**

Proposed Hedgerow Distinctiveness:

 **Low**

 **V.Low**



client
Vistry Group
project
Land Surrounding Burloes Cottages,
Newmarket Road, Royston

drawing title
PROPOSED HABITAT
CONDITION/DISTINCTIVENESS

scale @ A3
1:2,000.000002

drawn
LHG/MPG

issue date
11/8/2025

drawing / figure number

Figure 5