

Shadow Habitat Regulations Assessment (sHRA)

Land at Devizes Road, Hilperton,
Trowbridge

06 February 2026

Ecology
Arboriculture
Land Management





Site Details

Site Name and Location	Land at Devizes Road, Hilperton, Trowbridge
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Client	Redcliffe Homes Ltd

Report Details

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Contents

1	Introduction	1
1.1	Site Context	1
1.2	Description of Proposed Development.....	1
1.3	Aims	1
2	HRA Requirement	2
2.1	National Site Network	2
2.2	Legislative Context.....	2
2.3	Local Policy/Guidance	3
2.4	HRA Process	3
3	Sites Scoped Into Assessment	5
4	Screening Assessment.....	6
4.1	Factors Affecting NSN sites	6
4.2	Likely Significant Effect (LSE) Test	6
5	Information for Appropriate Assessment.....	10
5.1	Bath and Bradford-on-Avon Bats SAC.....	10
5.2	Use of the Proposed Development Site by Bats.....	14
5.3	Identification of Potential Impact Pathways and Counteracting Measures	16
6	Cumulative Assessment	23
7	Summary Assessment and Conclusions	24
8	References	25

Appendices

Appendix 1 – Adoptable S38 Lighting (Highway Lighting Solutions).....	27
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1 Introduction

This report has been prepared on behalf of Redcliffe Homes Ltd in relation to a proposed planning application at Land at Devizes Road, Hilperton, Trowbridge.

The area within the application boundary is hereafter referred to as the 'Site'. A separate Ecological Impact Assessment has been produced (GE Consulting, 2026a) and accompanies the planning application.

1.1 Site Context

The Site is located off Devizes Road and Hilperton Drive (A361) in Hilperton and comprises two separate privately owned land holdings. The land holding to the north comprises a former tenanted (in use at time of survey) horse paddock, with associated yard and stables.

The land holding to the south is within private residential curtilage. There are two stable blocks on the Site; one to the north (Active Stables) and one to the south (Disused Stables). The Site is situated on the outskirts of an urban area and is bordered by farmland interspersed by hedgerows to the north, sports pitches to the east and residential development/roads to the south and west.

1.2 Description of Proposed Development

Proposals consist of an Outline Planning Application for a residential development of up to 80 units with associated landscaping and access.

1.3 Aims

This shadow Habitats Regulations Assessment (sHRA) has been produced to provide Wiltshire Council (WC) with technical information required to assess whether the project (i.e. the proposed scheme) may have an adverse impact on the integrity of any National Site Network site (also known as European sites'), either alone or in combination with other plans or projects in the local area as part of their responsibility as the 'competent authority' under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended).

The aims of this report is to:

- 👉 Identify those National Site Network sites that fall within the potential zone of influence (Zoi) of the proposed scheme, by way of consideration of their qualifying interests, conservation objectives and favourable (or otherwise) conservation status;
- 👉 Identify any effects/impacts of the proposed scheme that are likely to have likely significant effects (LSEs) on the identified National Site Network either alone or in-combination; and
- 👉 Identify ways in which the proposed scheme can be modified to avoid/mitigate impacts on the National Site Network to an acceptable level.

This sHRA should be read in conjunction with the corresponding application documents and drawings submitted with the planning application, in particular:

- 👉 Ecological Impact Assessment– (GE Consulting, 2026). Ref: 3131-EcIA-NH;
- 👉 Illustrative Masterplan (Thrive Architects, 2026) REDC251029 SKL-01; and
- 👉 Adoptable S38 Lighting Strategy. Highway Lighting Solutions (2026) HLS-1012-B.

2 HRA Requirement

2.1 National Site Network

European Council Directive 92/43/EEC (known as the Habitats Directive) and Council Directive 2009/147/EC (codified version of Directive 79/409/EEC as amended) ‘the Wild Birds Directive’ established a network of internationally important sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)) designated for their ecological status. Special Areas of Conservation¹ (SACs) are designated under the Habitats Directive and promote the protection of flora, fauna and habitats. Special Protection Areas (SPAs) are designated under the Birds Directive in order to protect rare, vulnerable and migratory birds. These sites form a Europe-wide network of designated sites known as ‘Natura 2000’

In the UK, these formerly EU-protected sites have been merged into a National Site Network by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which amends the Conservation of Habitats and Species Regulations 2017 (as amended) by transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

In addition to sites designated under the above legislation, UK Government policy (NPPF paragraph 181 and Circular 06/2005 refer) states that internationally important wetlands listed under the Ramsar Convention 1971 (Ramsar sites) are afforded the same protection as SPAs and SACs for the purpose of considering development proposals that may affect them.

The term ‘Habitats Regulations Assessment’ is used to cover the process of assessing the effects of a project or plan on National Site Network sites and Ramsar sites.

2.2 Legislative Context

The Conservation of Habitats and Species Regulations 2017 (as amended) provides protection to the National Site Network.

Under Part 6 ‘Assessment of Plan and Projects’, Regulation 63 (1) of these regulations, an appropriate assessment needs to be undertaken by the ‘competent authority’ using evidence provided by the applicant (if requested) and in consultation with Natural England.

“(1) A competent authority [in this instance Wiltshire Council], before deciding to undertake, or give consent, permissions or other authorisation for, a plan or project which:

Is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and

Is not directly connected with or necessary to the management of the that site;

Must make an appropriate assessment of the implications for that site in view of that site’s conservation objectives.

(2) A person [the applicant] applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required.”

¹ Those sites that have been adopted by the European Commission and formally designated by the government of each country in whose territory the site lies

The European Court of Justice (ECJ) has ruled that a plan or project can only be authorised if the competent authority has made certain that it will not adversely affect the integrity of any affected European site, and that “no reasonable scientific doubt” remains as to the absence of such effects.

As the application is not necessary to the management of the site for nature conservation, Wiltshire Council, as the relevant competent authority, is required to carry out an HRA to ensure that the development decision does not adversely affect the integrity of European sites.

2.2.1 Additional Information

As is often the case, the National Site Network sites referred to in this report are subject to multiple designations. The reason for this is that the legal regimes of the Birds and Habitats Directives are separate, and failure to additionally designate an existing SAC as an SPA (or vice versa) may breach legislation. A given site may have permutations of an SPA and a SAC and a Ramsar site and, as such, the boundaries of these may vary slightly or significantly and may overlap.

In England and Wales statutory National Site Network sites are also notified as Sites of Special Scientific Interest (SSSI). As such the provisions of the Wildlife and Countryside Act 1981 (as amended) are also relevant. The act imposes an important general duty on a range of authorities exercising functions which are likely to affect SSSIs. This general and overarching duty requires an authority to take reasonable steps, consistent with the proper exercise of the authority’s functions, to further the conservation and enhancement of the features for which sites are of special interest. It applies whenever an authority is exercising its functions, including when it has the power to take action, and applies at every stage from the formulation of plans, to the carrying out of operations and the making of decisions.

Due to the overlap and interplay between designated sites, the assessment below draws upon information produced to support the planning application and information freely available from Natural England and the Joint Nature Conservation Committee (JNCC) in relation to designated sites.

2.3 Local Policy/Guidance

There are a number of pieces of relevant policy/guidance for several of the internationally designated sites upon which the Site may result in impacts. Those of particular relevance are outlined below and discussed further in the relevant sections:

-  Bath and Bradford on Avon Bat SAC – Planning Guidance for Wiltshire (Wiltshire Council, 2015);
-  Trowbridge and Westbury Bat Mitigation Strategy (Wiltshire Council, 2025); and
-  HRA and Mitigation Strategy for Salisbury Plain SPA (in relation to recreational pressure from residential development) (Wiltshire Council, 2024).

2.4 HRA Process

Habitats Regulations Assessment follows a four-stage hierarchical approach. Each of those four stages contains a number of steps comprising the tests or procedures that are required by the Habitats Directive.

The definitive process for HRA is detailed in the Handbook for HRA (Tyldesley, D., and Chapman, C., 2013). The Handbook was intended to supplement government guidance (on GOV.UK) by bringing together all relevant law, policy, methodology, technical advice and good practice into one comprehensive source. Following the accession of the Planning and Infrastructure Bill in 2025 and UK Government Policy to seek to adapt the HRA process to facilitate development, the publishers of the Handbook – DTA Publications has elected to withdraw the handbook as of January 2026.

The justification for this being that the regulatory and assessment landscape will become ever more complex, with many individual sectors each having their own way of avoiding or adapting the HRA process, whilst the Regulations themselves are retained, with or without amendments. As such as it is not a viable proposition to adapt and maintain the Handbook as a resource that would be needed to adequately navigate through all the relevant processes in England.

Until the new processes become clear and guidance is published, the handbook will be followed in the interim, with ecologists fully cognizant of the risks of misapplying the regulatory process as it unfolds.

The HRA process comprises:

2.4.1 Stage 1 Screening (Test of Likely Significant Effect)

This stage seeks to identify any ‘Likely Significant Effects’ (LSE) of a plan or project on a National Site Network site(s), either alone or in combination with other plans or projects. A significant effect can be defined as an ‘effect that is likely to undermine the site’s conservation objectives’.

If the outcome of this stage is that no likely significant effect is identified (either alone or in combination) then no further assessment is required. This is essentially a risk assessment process that seeks to understand whether there are any mechanisms for identified impacts arising from the project to adversely affect the European site (e.g. cause-effect pathway).

Following the People Over Wind ruling (case C323/17) in April 2018, ‘it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site’ and therefore this screening is undertaken in the absence of standard mitigation.

2.4.2 Stage 2 Appropriate Assessment and the Integrity Test

Should the Stage 1 Screening identify that a plan or project could lead to likely significant effects on a National Site Network site(s), then it becomes necessary to proceed to Stage 2, which is often referred to as Appropriate Assessment (AA). AA considers whether a plan or project could adversely affect the integrity of one or more National Site Network site(s), either alone or in combination with other plans or projects. A significant effect can be defined as an ‘effect that is likely to undermine the site’s conservation objectives’.

The assessment should consider the implications of any identified impacts in view of the site’s conservation objectives and its conservation status. If the potential for Adverse Effects on Integrity (AEOI) of the site are identified, this assessment should also consider measures to control the identified impacts so as to avoid adverse effects on site integrity.

2.4.3 Stage 3 Assessment of Alternatives

If adverse effects on National Site Network site(s) are predicted (or cannot be ruled out), this stage seeks to ascertain whether there are alternative solutions that would have no, or a lesser effect on the integrity of the National Site Network site(s) adversely affected by the project. If impacts cannot be fully mitigated, then the plan or project should be rejected, or the HRA taken forward to the final stage, i.e. assessment of compensatory measures where it is determined that the project or plan should proceed for Imperative Reasons of Overriding Public Interest (IROPI).

2.4.4 Stage 4 Imperative Reasons of Overriding Public Interest (IROPI)

This stage assesses compensatory measures where no alternative solutions exist and where adverse impacts remain, and it is determined whether the project or plan should proceed for Imperative Reasons of Overriding Public Interest (IROPI).

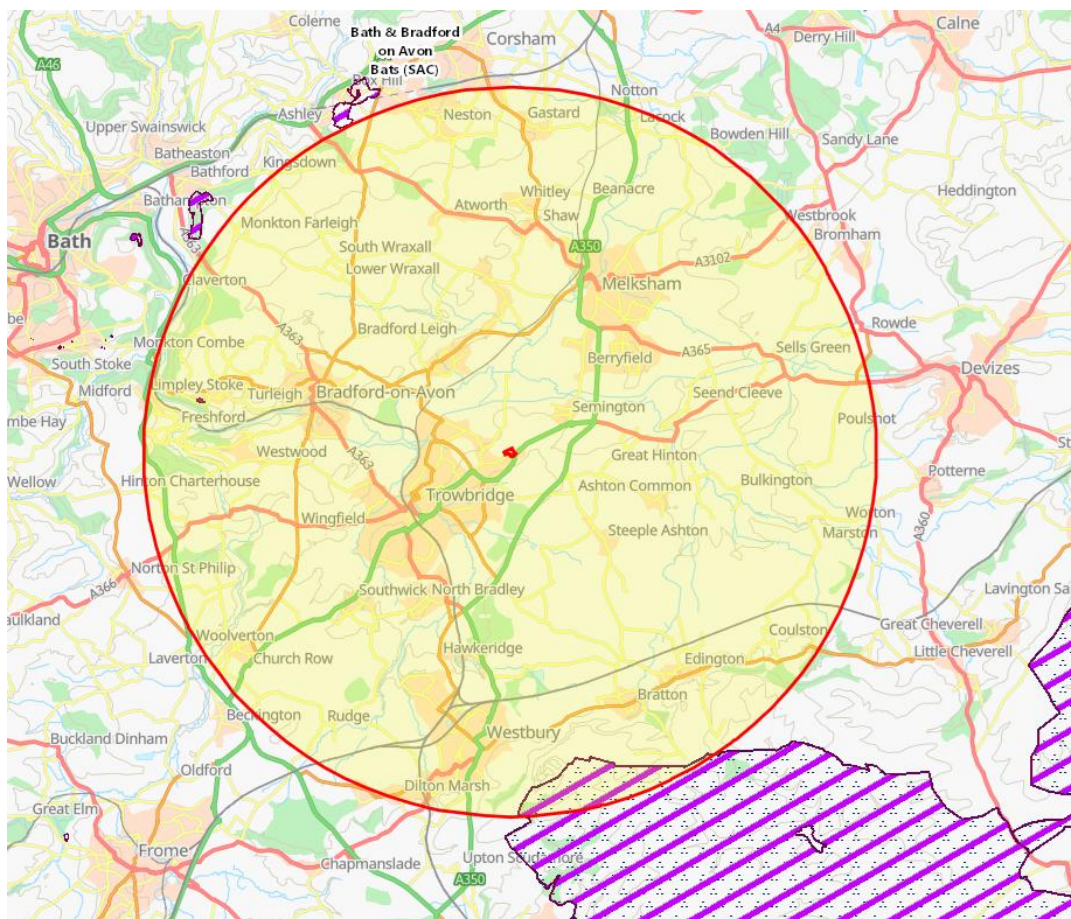
3 Sites Scoped Into Assessment

The 'zone of influence' (Zol) for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities². A Zol of 10 km for internationally designated sites has been defined in relation to the project. Three National Site Network sites lie within 10km of the Site and have been scoped into the assessment:

- 📍 Bath and Bradford-on-Avon Bat SAC;
- 📍 Salisbury Plain SAC; and
- 📍 Salisbury Plain SPA.

National Site Network locations in relation to the application site are shown below (provided by MAGIC³).

Plate 1: National Site Network Sites within 10km Zol



The proposed development was not considered to have effects on the National Site Network beyond 10km as no potential pathways have been identified.

4 Screening Assessment

4.1 Factors Affecting NSN sites

The Assessment takes into account the current state of the National Site Network, the main sensitivities and the range and scale of potential impacts from the proposed development.

During the screening exercise, Standard Data Forms produced by JNCC have been used to identify threats, pressures and activities with high impacts on the site's designated features. In addition, Site Improvement Plans (SIP) which have been developed by Natural England for each site, have been used to identify current and predicted issues affecting the condition of the qualifying features.

4.2 Likely Significant Effect (LSE) Test

Table 1 below details the characteristics of the National Site Network and identifies potential pathways for LSEs as a result of the proposed development.

The assessment process found that the proposed development will not involve any direct land take of any of the National Site Network, however indirect LSEs on the Salsbury Plain SPA/SAC, and the Bath and Bradford-on-Avon SAC cannot be ruled out.

Table 1: Screening Assessment for LSEs

Site Name	Distance from Site	Qualifying Features ⁴	Conservation Objectives ⁵	SSSI Condition Assessment	Threats, pressures and activities with negative impacts on the site (taken from Standard Data Form and SIP ⁶)	Risk of Significant Effect?
Salisbury Plain SAC/SPA	8.7km south	21465.94 ha site comprising heath, scrub, maquis and garrigue, phygrana, dry grassland, steppes, humid grassland, mesophile grassland, improved grassland, broad-leaved deciduous woodland, coniferous woodland, mixed woodland and other land (including towns, villages, roads, waste places, mines, industrial sites). Annex I habitats that are a primary reason for selection of this site: <i>Juniperus communis</i> formations on heaths or calcareous grasslands - Semi-natural dry grasslands and scrubland facies on	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; - The extent and distribution of qualifying natural habitats and habitats of qualifying species - The structure and function (including typical species) of qualifying natural habitats - The structure and function of the habitats of qualifying species - The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely - The populations of qualifying species, and,	Salisbury Plain SSSI 45.27% favourable 53.33% unfavourable-recovering 0.96% partially destroyed 0.45% not recorded Porton Down SSSI 14.80% favourable 85.20% unfavourable-recovering Parsonage Down SSSI	Changes in species distribution Air pollution: risk of atmospheric nitrogen deposition	No – while the development will likely cause an increase in traffic and therefore atmospheric nitrogen deposition, due to the distance between the development site and the SAC, and the size of the development it is highly unlikely to result in LSE. Additionally, the Site falls outside of the Recreational Buffer Zone as outlined in the

⁴ <https://sac.jncc.gov.uk/#>

⁵ <https://designatedsites.naturalengland.org.uk/>

⁶ <https://publications.naturalengland.org.uk/category/5458594975711232>

Site Name	Distance from Site	Qualifying Features ⁴	Conservation Objectives ⁵	SSSI Condition Assessment	Threats, pressures and activities with negative impacts on the site (taken from Standard Data Form and SIP ⁶)	Risk of Significant Effect?
		calcareous substrates (<i>festuco-brometalia</i>) Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:  N/A Annex II species that are a primary reason for selection:  Marsh fritillary butterfly Annex II species present as a qualifying feature: N/A	 The distribution of qualifying species within the site.	 78.65% favourable  21.35% unfavourable-recovering		HRA and Mitigation Strategy for the SPA (Wiltshire Council, 2024) therefore there will be no recreational impact. Development is highly unlikely to impact on other pressures/threats listed.
Bath and Bradford-on-Avon Bats SAC	8.8km west	106.45 ha site comprising heath, scrub, maquis and garrigue, phygrana, broad-leaved deciduous woodland and other land (including towns, villages, roads, waste places, mines, industrial sites). Annex I habitats that are a primary reason for selection of this site:  N/A	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;  The extent and distribution of the habitats of qualifying species  The structure and function of the habitats of qualifying species	Box Mine SSSI  100% favourable Brown's Folly SSSI  75.01% favourable  24.99% unfavourable-recovering Combe Down and	Planning permission: general Change in land management Direct impact from third party Feature location/extent/condition unknown	Yes - a change in land management is to occur, offsite habitat availability/ management is going to change, and public access/ disturbance may increase due to the proposed

Site Name	Distance from Site	Qualifying Features ⁴	Conservation Objectives ⁵	SSSI Condition Assessment	Threats, pressures and activities with negative impacts on the site (taken from Standard Data Form and SIP ⁶)	Risk of Significant Effect?
		Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: - N/A Annex II species that are a primary reason for selection: - Greater horseshoe bat - Bechstein's bat Annex II species present as a qualifying feature: Lesser horseshoe bat	- The supporting processes on which the habitats of qualifying species rely - The populations of qualifying species, and, - The distribution of qualifying species within the site.	Bathampton Down Mines SSSI 98.51% favourable 1.49% unfavourable-recovering Winsley Mines SSSI 100% favourable	Offsite habitat availability/management Public access/disturbance Change to site conditions Inappropriate designation boundary	development. The Site lies within the Yellow Zone: Medium Risk sensitivity zone for habitat and the Grey Hatched Zone Medium Risk sensitivity zone for recreational pressure of the Trowbridge and Westbury Bat Mitigation Strategy (TWBMS). Development is highly unlikely to impact on other pressures/threats listed.

5 Information for Appropriate Assessment

5.1 Bath and Bradford-on-Avon Bats SAC

The Bath and Bradford-on-Avon Bats SAC is made up of 4 component Sites of Special Scientific Interest (SSSIs):

-  Winsley Mines SSSI;
-  Brown's Folly SSSI;
-  Combe Down, Bathampton Down Mines SSSI; and
-  Box Mine SSSI.

The Site Improvement Plan⁷ for the SAC states that:

“The SAC as a whole supports 15% of the UK population of greater horseshoe bats, internationally significant populations of lesser horseshoe and Bechstein's bats. The SAC comprises four component sites: Brown's Folly, Box Mine, Winsley Mines, and Combe Down and Bathampton Down Mines. These are distributed over a wide geographical area to the south and east of Bath and have different known bat usages, which over the whole of the SAC include breeding, hibernation, swarming and dispersal. The sites are all abandoned limestone mines, and some include areas of supporting habitat: broadleaved woodland and species rich calcareous grassland. The surrounding landscape provides feeding and commuting opportunities between the component SSSIs, other SAC sites and other undesignated roosts which is vital in supporting the bats throughout their life cycle. Features of significance within the wider landscape are watercourses, woodland, grazed pasture, hay meadows, hedgerows, linear trees and scrub.”

Greater Horseshoe Bats (GHS): This site in south-west England is selected on the basis of the size of population represented (up to 15% of the UK population). The Winsley Mine SSSI recorded counts of up to 100 hibernating GHS, representing c. 5% of the UK population in this site alone. In 1985, according to the Supplementary Advice on Conserving and Restoring Site Features (Natural England, 2019), a peak count of 56 bats was counted (1985).

Roost choice, and the presence of bats within the SAC, is likely to be influenced by the site's ability to provide bats with food and shelter. The woodland surrounding the underground mines is important for the maintenance of optimal humidity conditions inside the mine system and also as foraging areas.

Beyond this, GHS rely on the maintenance of supporting offsite habitats (functionally linked land). The provision of rich feeding areas around a roost, and the commuting routes (or flight-lines) to them, are an important element in sustaining the SAC population. Flightlines extend beyond the designated site boundary into the wider local landscape and are especially important as a link between summer and winter roost sites. GHS commute and forage along linear features, over grazed pasture and in woodland. Permanent pasture and ancient woodland linked with an abundance of tall bushy hedgerows is ideal supporting habitat for this species. GHS tend to forage within 2.5km of their summer roost, though they can travel up to 4km from these roosts to suitable foraging grounds (Schofield, 2008). In winter, their foraging range is reduced, with a mean foraging radius of 1.2 km around hibernation sites reported.

The bats are vulnerable to the loss of insect food supplies due to insecticide use, changing farming practices and the loss of broadleaved tree-cover, and to the loss or disturbance of underground roost sites.

⁷ <https://publications.naturalengland.org.uk/publication/6279810384920576?category=5374002071601152>

Lesser Horseshoe Bats (LHS): The main population of LHS is at Box Mine SSSI, with a hibernating population of 197 (peak count – Jan 2014) (Natural England, 2019). A smaller population is present at Winsley Mine SSSI, c. 6 individuals recorded (peak count – Dec 1984) (Natural England, 2019).

As with GHS, roost choice and the presence of bats within the SAC, is likely to be influenced by the site's ability to provide bats with shelter and food (supporting habitat). LHS tend to forage within 2-3km of their roost, though they can travel up to 4km from their roosts to suitable foraging grounds. LHS commute and forage along linear features over grassland and woodland. They feed on flies (mainly midges), small moths, caddis flies, lacewings, beetles, small wasps and spiders. The species prefers sheltered valleys with extensive deciduous woods or dense scrub, close to roost sites. Where habitat is fragmented, linear features such as hedgerows are important corridors between roosts and foraging areas. During the winter, their foraging range is reduced, with a mean foraging radius of 1.2 km around hibernation sites reported. Summer and winter roosts are usually less than 5-10 km apart.

LHS are vulnerable to the loss or disturbance of both summer and winter roost sites and the removal of linear habitat corridors.

Bechstein's Bats: The main populations of Bechstein's bat are at Box Mine SSSI and Brown's Folly SSSI, although recorded numbers are low (Natural England, 2019). There are no records of Bechstein's bats at either Winsley Mines SSSI or Combe Down and Bathampton SSSI.

Similarly to the horseshoe bats, roost choice and the presence of bats within the SAC, is likely to be influenced by the site's ability to provide bats with shelter and food (supporting habitat). Roosts are usually tree holes during the summer and exposed sites with caves, cellars or tree holes during the winter⁸. Bechstein's bats tend to forage near to their roost sites and rarely travel more than 1.5km to find suitable foraging grounds⁹. They forage largely in enclosed vegetation such as woodland and feed mainly by gleaning flies, earwigs and moths. The species prefers damp, deciduous woodland although they may be found in parkland and coniferous woodland. Where habitat is fragmented, linear features such as hedgerows are important corridors between roosts and foraging areas.

Bechstein's bats are vulnerable to the loss or disturbance of suitable habitat, e.g. by removal of dead/dying trees, habitat fragmentation and drainage of wet woodlands.

The SIP states that the main pressures and threats are:

- 👉 Planning permission - loss of foraging habitat, loss of minor roost sites, and disruption of flightpaths (the latter particularly through light pollution).
- 👉 Change in land management – loss of foraging habitat through inappropriate management in terms of bats.
- 👉 Direct impact from third party – vandalism and impacts of recreational activities.
- 👉 Feature location/ extent/ condition unknown (Bechstein's bat only) – lack of knowledge regarding location and extent of Bechstein's bats.
- 👉 Offsite habitat availability/ management – use of surrounding habitats.
- 👉 Public access/ disturbance – damage disturbance from public access.
- 👉 Change to site conditions – Unstable mines at risk of collapse may no longer be used by bats.
- 👉 Inappropriate designation boundary – new sites being considered for designation.

5.1.1 Bath and Bradford-on-Avon Bat SAC Planning Guidance for Wiltshire

Wiltshire Council and Natural England jointly published the guidance document assist applicants on how development activities can affect Wiltshire's bat SACs and what must be done to avoid or mitigate

⁸ <https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/bechsteins.htm>

⁹ <https://cdn.bats.org.uk/uploads/pdf/Bechsteins-bat-species-account.pdf?v=1642079639>

any impacts. It aims to flag up the types and locations of development that present risks to the SACs so that the needs of bats can be taken into consideration as early as possible in order to avoid unnecessary delays to development projects.

The guidance provides a required survey scope when Sites are located within Consultation Zones around Core Roosts associated with the SAC, and provides a list of potential impacts that should be considered, which are as follows:

- 🦇 Physical changes – alteration / demolition / removal of a potential roost feature including environmental conditions (temperature, humidity, internal light levels etc), loss, damage or change of management of potential foraging habitat, removal / fragmentation / modification of habitats in a potential commuting corridor;
- 🦇 Lighting – artificial lighting close to potential roosting, foraging and commuting features;
- 🦇 Noise and vibration – construction / demolition activities close to potential roost features;
- 🦇 Recreational disturbance – increasing the risk of recreational visits both organised and informal
- 🦇 Pollution – dust and fumes close to potential roost features; and
- 🦇 Mortality – predation by domestic cats at roost entrances, collision risk from wind turbines.

These broad impacts are informed by the pressures and threats from the Site Improvement Plan for the SAC (NE, 2015b), as outlined above.

The Site is located within the 1500m buffer for Bechstein's bats from Green Lane and Biss Woods Local Wildlife Site (LWS) see **Plate 2** below. The Site lies outside the Consultation Zones for the other two SAC Species, GHS and LHS.

Plate 2: Site Location within Bath and Bradford on Avon Bat SAC consultation zone



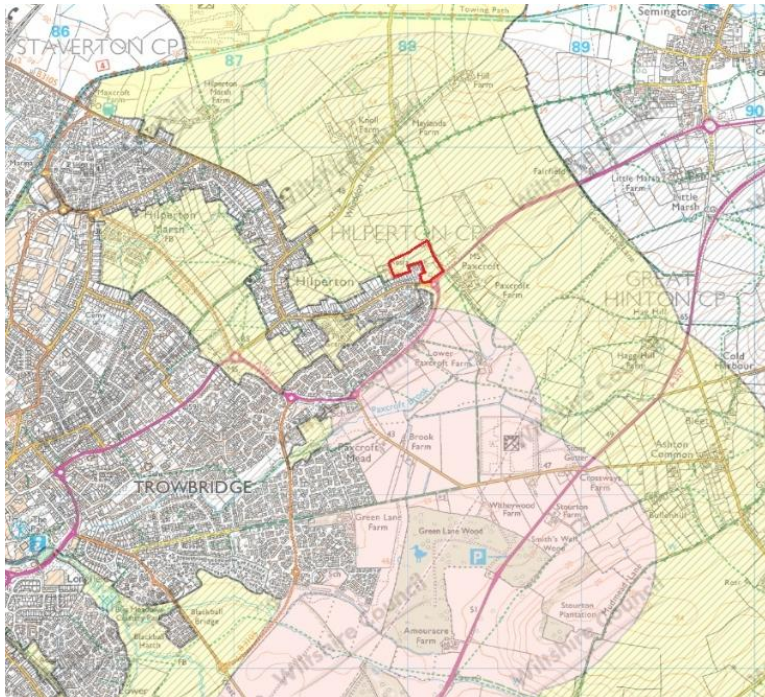
5.1.2 Trowbridge and Westbury Bat Mitigation Strategy (TWBMS)

Wiltshire Council published the TWBMS in July 2025 intended to provide a clear and detailed approach to considering the impact of development in the Trowbridge and Westbury area on the Bath and Bradford-on-Avon Bats Special Area of Conservation (SAC). This will help inform strategic planning for the area's future housing needs. This document builds upon the previous iteration – The Trowbridge Bat Mitigation Strategy (Wiltshire Council, 2020) and has been produced in support of the Wiltshire Local Plan Review 2020-2038. The document builds upon the guidance as outlined in the Bath and Bradford-

on-Avon Bat SAC Planning Guidance for Wiltshire (Wiltshire Council, 2015), though is tailored proposals within and around the settlements of Trowbridge and Westbury.

The TWBMS outlines a series of Bat Sensitivity Zones have been developed with regards to habitat suitability and recreational pressures and have been drawn around key maternity roosts. The Site lies within the Yellow Medium Risk Sensitivity Zone (areas where habitat has been shown to be of importance or is highly likely to be of importance for SAC bats) and the Grey Hatched Medium Recreational Risk Zone (areas where new residential development is expected to result in increased recreational pressure on key woodland bat sites) – **Plate 3** refers.

Plate 3: Site Location within TWBMS Zones



Developments within the Yellow Zone must mitigate for all impacts on target bat species on site, and should expect to make a payment for strategic habitat mitigation.

Developments within the Grey Hatched Zone of less than 50 dwellings should expect to make a payment for recreational mitigation; and proposals of 50 or more dwellings within this zone will generally be expected to provide a Suitable Alternative Natural Greenspace (SANG) / sufficient natural recreational focused greenspace to ensure that new residents do not impact upon the important woodland sites.

In respect of all the zones, development proposals will be assessed on a case-by-case basis by the council's ecology team.

As with the aforementioned documents, the TWBMS provides detail on what could result in impacts upon the SAC:

“Significant potential effects to the SAC therefore include impacts to the foraging areas and commuting routes in the surrounding landscape used by the bats as well as roosts and can include:

-  *Habitat degradation - alteration / demolition / removal of a potential roost feature including changes to environmental conditions (temperature, humidity, internal light levels etc); loss, damage or change of management of potential foraging habitat; or removal / fragmentation / modification of habitats in a potential commuting corridor;*
-  *Lighting – increased artificial lighting affecting potential roosting, foraging, commuting features as well as insect availability;*

- 🦇 *Noise and vibration – construction / demolition activities close to potential roost features;*
- 🦇 *Recreational disturbance – increasing the risk of recreational visits, both organised and informal. This can result in impacts such as trampling of vegetation, leading to changes in species composition, loss of vegetation and erosion; disturbance from the presence of people and their activities; ‘general’ urban effects: dumping of waste, damage, vandalism, fires; and spread of plants including alien species.*
- 🦇 *Pollution – dust and fumes close to potential roost features; and*
- 🦇 *Mortality – e.g. predation by domestic cats at roost entrances, collision risk from road traffic and wind turbines.*

5.2 Use of the Proposed Development Site by Bats

5.2.1 Roosting

5.2.1.1 Trees

As outlined in the EclA (GE Consulting, 2026a) the Site includes a number of mature trees, both specimen field trees and associated with the Site boundaries. A number of trees with Potential Roost Features (PRFs) were identified via Ground Level Tree Assessment (GLTA), and as such were subject to further survey via endoscope. No evidence of roosting bats was identified on any of the tree inspections

5.2.1.2 Buildings

The buildings on site were subject to assessment for roosting bats, including Building Inspection, Emergence Survey and supplementary deployment of static detectors. Surveys identified that Building B1 (Disused Stables) to represent infrequently used roosts for small numbers of day roosting lesser horseshoe (1no.) and greater horseshoe bats (2no.). As a result of the Site’s location, it is reasonable to conclude that these bats could be associated with the Bat SAC, and that the day roosts identified form part of a wider network of such sites across the wider landscape. In the absence of mitigation, the scheme will result in the loss of roosts for Annex II species lesser and greater horseshoe, which for those reasons discussed above, have the potential to be associated with the Bath and Bradford on Avon Bat SAC.

5.2.2 Foraging and Commuting

The Site has been subject to extensive surveys with works conducted by Engain in 2022, and more detailed updates by NPA in 2024 as outlined in the EclA (GE Consulting, 2026).

The 2022 surveys identified that at least 10 species were utilising the Site to some extent. In regard to Annex II bats greater horseshoe bats were recorded on the western detector in May (5.8 passes per night), June (0.6 passes per night), July (2.6 passes per night), August (2.6 passes per night), September (74.4 passes per night) and October (0.25 passes per night). On the eastern detector they were recorded in April (0.2 passes per night), May (1.2 passes per night), August (0.29 passes per night) and September (2.2 passes per night). Activity levels were therefore similarly low in both locations, with a peak in the west in September indicating that an individual bat likely foraged around the detector in that period. This indicates that the Site is used by an individual bat or small numbers of bats commuting through the Site, with greater levels of activity on the west (if the September results are excluded, the total passes per night across the recording period are 10.6 in the west and 0.8 in the east).

Lesser horseshoe bats were recorded on the western detector in May (0.6 passes per night), August (0.3 passes per night) and September (0.2 passes per night). They were recorded on the eastern detector in September only (0.2 passes per night). This indicates that the Site is used infrequently by an individual

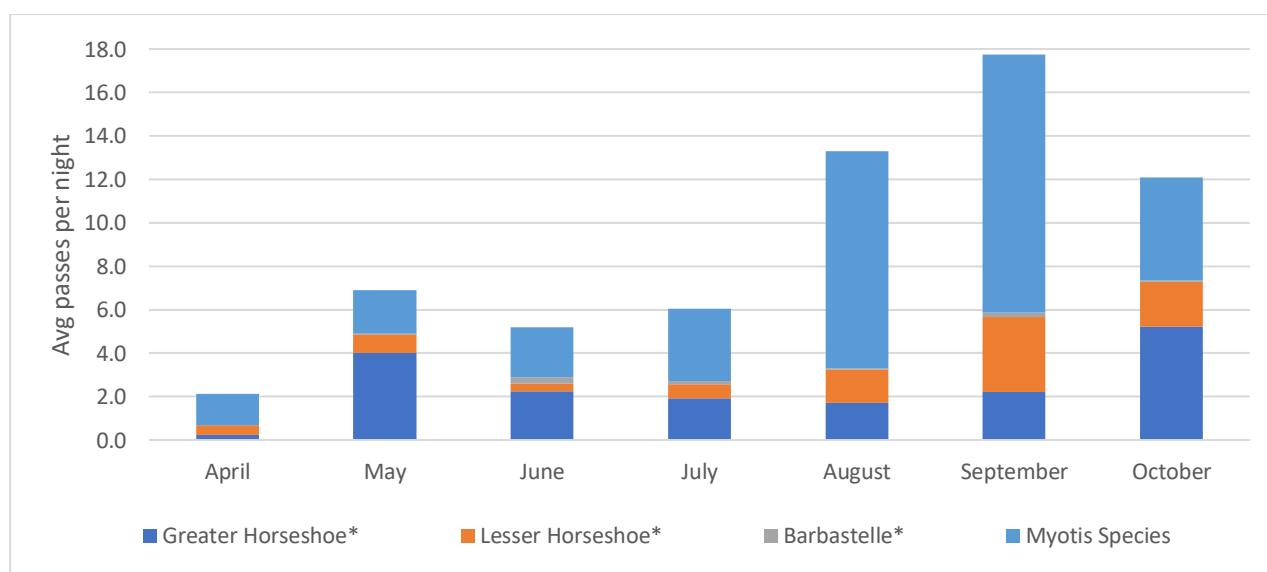
bat or small numbers of bats commuting through the Site, with more activity on the western edge of the Site compared with the east.

The 2024 surveys were conducted in line with the TWBMS and were more detailed in nature following the refusal of the original application due to insufficient data. As with the 2022 surveys, at least 10 bat species using the Site for foraging/commuting with a cumulative 39,836 passes across the 50-night period (~796 passes per night).

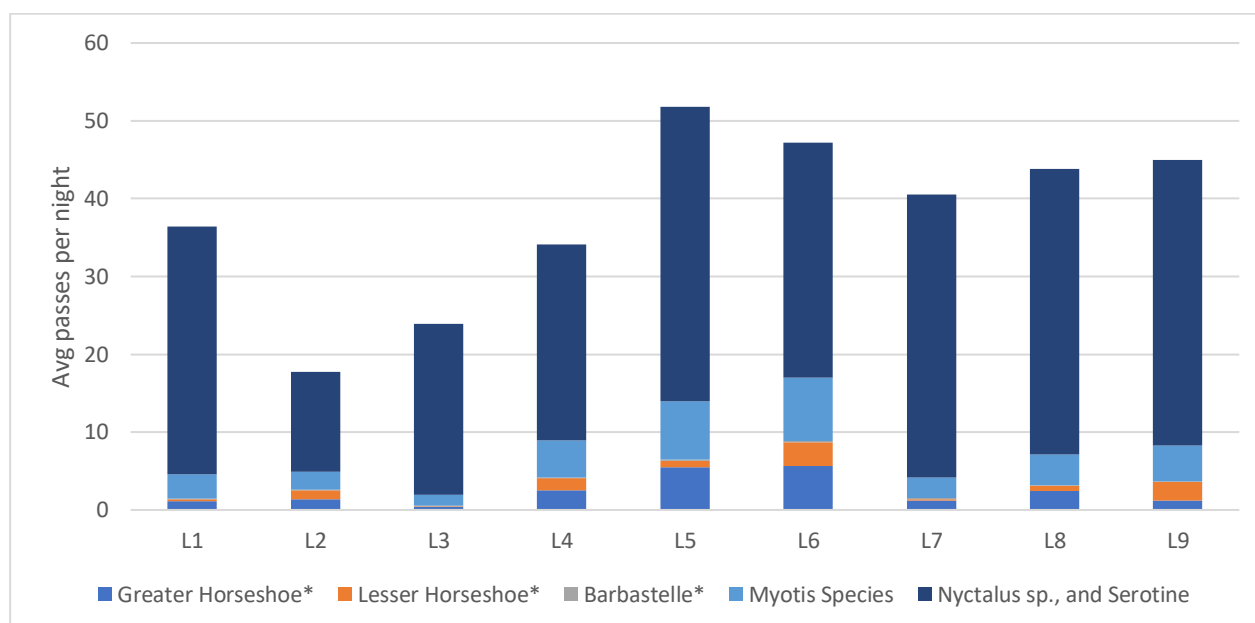
Myotis bats (including Annex II Bechstein's for which the SAC is in part designated) account for 4.82% of total calls (1,921 *Myotis* registrations). The highest *Myotis* activity was recorded in August (9.98 passes per night) and September (11.87 passes per night). The majority of these records are suggestive of commuting behaviour. The NBW surveys recorded both foraging and commuting activity by *Myotis*, with the vast majority recorded close to the eastern boundary of the Site. On average the detectors at A6 and A5 in proximity to Building B1 the recorded the highest *Myotis* activity, though similar levels of activity were noted across the southern part of the Site at detectors A7, A8 and A9. The higher activity recorded at location A5 in August (40.8 passes per night) is due to a single night (20 August 2024) of higher foraging activity (as suggested by 122 continuous records between 21:31-21:50, with no corresponding records at detectors A4 or A6). On this night *Myotis* activity was recorded much earlier on Site at detectors A6 (centre of Site), A1 (western boundary), A2 (northern boundary) and A9 (eastern boundary) (in order from earlier-later), suggesting the bats were foraging around the Site boundary features. Throughout the NBW surveys no *Myotis* were observed/recorded at Stopping Points 3 or 10 on the southern transect.

The Annex II species greater horseshoe, lesser horseshoe and barbastelle were all recorded at the Site, albeit in relatively modest proportions of total calls – 1.25% (497 registrations); 2.70% (1074 registrations); and 0.14% (56 registrations) respectively. Activity for horseshoe bats was recorded in all seven months of the active period with peaks in May and October (GHS) and September (LHS), with registrations in April being the lowest, and roughly half the registrations in June, July and August when compared to September and October. The largest number of calls were associated with A5 and A6 (in close proximity to the confirmed roosts in Building B1), with activity across the Site otherwise being fairly uniform. This suggests that while the Site certainly provides foraging opportunities for horseshoe bats, it appears to be of less importance during the key maternity period (June/July).

Graph 1: Average Passes per Night (by month)



Graph 2: Average Passes per Night (by Detector Location)



The assemblage of bats recorded during these surveys is considered to be fairly typical given the Site's geographic location and the habitats on and adjacent to the Site. Overall bat activity was dominated by pipistrelle bats and, with all other species combined accounting for <10% of the total recorded activity with GHS and LHS representing 1.25% and 2.70% of total calls. Due to the difficulty in identifying *Myotis* bats to species level, they have been grouped together. They account for a cumulative 4.82% of total calls, a modest number considering that Annex II Bechstein's will likely account for a proportion of that total. More common *Myotis* species (Natterer's and Daubenton's) and the more uncommon species (whiskered, alcahloe, Brandt's), likely make up a larger proportion.

The activity surveys undertaken found that the Site habitats offer a resource for a variety of species including Annex II bats (including day roosting) that are associated with the SAC. However, taking into consideration the modest scale of the Site, its context in the landscape, its proximity to the SAC and the assemblage, and numbers of bats identified, there is no evidence to suggest the Site or either of its boundaries represent a significant/landscape commuting corridor for any of these species (as had been suggested in consultation responses for planning application PL/2022/07977).

5.3 Identification of Potential Impact Pathways and Counteracting Measures

5.3.1 Bath and Bradford-on-Avon Bats SAC

Considering the vulnerabilities of GHS, Bechstein's and LHS bats as described above, the development may result in potential effects to the Bath and Bradford-on-Avon SAC as identified in the Bats Special Areas of Conservation (SAC): Planning Guidance for Wiltshire (2015) and the TWBMS (2025)

-  Loss of Roosts;
-  Direct loss of foraging/commuting habitat;
-  Loss/disruption of commuting/foraging routes (flight lines) through indirect impacts such as lighting; and
-  Disturbance during construction works.

5.3.2 Loss of Roosting Habitat

The scheme will not directly impact upon the Bath and Bradford-on-Avon Bats SAC or its identified Core Roosts. However, as outlined above, in the absence of mitigation the scheme will result in the loss of

infrequently used roosts for small numbers of day roosting lesser horseshoe (1no.) and greater horseshoe bats (2no.) within Building B1. As a result of the Site's location, it is reasonable to conclude that these bats could be associated with the Bat SAC, and that the day roosts identified form part of a wider network of such sites across the wider landscape. While the loss of these roosts, is not likely to exceed the threshold for a Likely Significant Effect on the SAC, it could cumulatively (i.e. with the loss of other lower status roosts) result in an adverse effect on the integrity of the SAC.

The lesser and greater horseshoe bat roosts are of greatest conservation significance with an individual lesser horseshoe noted on occasion with at least two greater horseshoe day roosting. These horseshoe bats, are likely using the features as part of a network of such features both within the Site itself and within the locality, subject to environmental conditions. There was some correlation between the presence of greater horseshoe bats and the absence of lesser horseshoe bat, suggesting that interspecies competition may be a factor.

In the absence of mitigation, the demolition of Building B1 could result in injury/ mortality to several species of bat along with the loss of roost sites. This would be an offence under UK legislation. The Site will therefore require a **European Protected Species (EPS) Mitigation Licence (Bats)** from Natural England prior to works to the buildings. A licence cannot be applied for until full planning permission is granted, and all wildlife related conditions are discharged.

The licencing process there is a requirement to demonstrate that the application meets the 'Three Tests' under the Conservation of Habitats and Species Regulations 2017 (as amended). If met, these tests provide for derogations via the licensing process which allow what would under normal circumstances be illegal acts, to take place legally. When considering planning applications local authorities also have a duty to consider whether it is likely that these tests can be met and therefore the likelihood of the licence being granted by NE.

The three tests are as follows:

1. Regulation 55(2) (e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".
2. Regulation 55(9) (a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".
3. Regulation 55(9) (b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."

The three tests will be met in this case as follows:

1. The licence would be applied for under 'other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'.
2. This project would meet this test to satisfy the need for housing in the area and no satisfactory alternative for development is available.
3. The loss of the roosting sites in their current location will not be detrimental to the population of bats in their natural range as proportionate mitigation measures will be put in place to allow bats to continue to roost on Site.

In order to ensure that the 'Favourable Conservation Test' can be met, a mitigation statement will need to be submitted as part of the licence application. This includes measures to ensure that bats are not harmed during works and to ensure that there is long term provision of alternative roosting opportunities on Site (exact quantum of mitigation to be informed by further surveys). Input from a licensed bat worker will be required during licensable activities at the site (such as roof removal, soft demolition, conversion etc).

Mitigation measures will be required to ensure that bats are not harmed during demolition works and that there is long term provision of roosting opportunities for all species of bat on Site. Detailed specifications will be included within the subsequent licence application, though a Outline Mitigation Strategy has been provided within the EclA (GE Consulting, 2025a).

Due to the nature of the development, it has not been possible to retain the roosts in-situ, as such the creation of a bespoke bat house to the east of the Site, associated with the 50m buffer coupled with erection of bat boxes on retained trees will ensure that sufficient opportunities are created within the wider Site to mitigate for impacts to existing roosts.

This purpose-built bat house will provide a range of opportunities for both crevice and void dwelling species including those found to be roosting within the buildings at the Site

GLTA and further endoscopy did not identify any tree roosts within the Site, as such no impacts upon tree roosting bats is anticipated. Bat roosts in trees are by their very nature difficult to identify, being hard to locate and often transient in nature. For example, features such as flaking bark (popular as a roosting site for some of our bat species) change in a relatively short period of time. Some of these relatively delicate and short-lived roost types are lost and others appear; hence tree roosting bats move between a number of roosts.

As such, should works to trees be required, or should future amendments to the scheme design necessitate tree removal, further assessment via endoscope, and involving climbing assessments where necessary to identify presence/likely absence of roosting bats will be undertaken. In the event that evidence of roosting bats is identified, works will cease and further information collected in order to inform a mitigation licence application to Natural England.

As such, no Adverse Effect on Integrity (AEOI) is anticipated on the bat populations associated with Bath and Bradford-on-Avon Bats SAC through loss of roosting habitat.

5.3.3 Loss and Fragmentation of Foraging/Commuting Habitat

In the absence of mitigation, the proposed development has the potential to affect commuting and foraging bats through the severance of commuting/foraging routes due to hedgerow removal resulting in bats using less energy-efficient routes (Russ & Montgomery 2002) or abandoning roosts/ foraging areas altogether.

To mitigate, the scheme has been designed as per the requirements of the TWBMS to include a substantial dark corridor (c. 50m in width) along the eastern boundary of the Site. This will be set aside with its primary function as Core Bat Habitat in order to retain a permeable and functioning landscape for the target species. This is significantly in excess of the minimum 15m as required in the TWBMS, with the c. 50m being agreed with Wiltshire Council historically, as part of the wider Site Allocation. This extensive buffer will avoid severance of commuting routes/fragmentation but also provide high quality habitat for foraging. Additionally, the scheme seeks to retain permeability around the Site periphery (though to a more modest extent – c. 5-10m), which can be used by foraging and commuting bats, allowing them to continue to move through and around the Site between offsite roosts and foraging grounds. The buffers will comprise a mosaic of grassland, native mixed scrub and native specimen

trees, with new SUDs features providing seasonal waterbodies to both attenuate water and to enhance foraging. New attenuation features will include wet meadow mixtures which is also likely to increase invertebrate prey, along with new areas of diverse grassland, mixed native scrub, trees and woodland. These areas will be kept dark. This will form a significant area of enhanced foraging and commuting habitat for bats, which is well connected to the current core foraging and commuting habitat at the Site. As such this is considered to be a significant enhancement to the current baseline of managed low quality agricultural grassland. It is proposed that this mitigation is implemented prior to the first occupation of dwellings on Site.

Whilst there will be losses of scrub and specimen trees within the development, fragmentation will be minimised by reducing gaps for roads as much as possible, whilst maintaining dark corridors around the development periphery.

As required by the TWBMS, development within the yellow medium risk zone will be expected to fully mitigate on site for the loss of habitat by ensuring no net loss, to be demonstrated by use of an established metric (preferably the Statutory Biodiversity Metric or subsequent version) based on best practice. Government Guidance¹⁰ on what can be counted for BNG is as follows:

“If you already need to create or enhance habitat as part of your development, you may be able to count this towards your 10% biodiversity net gain (BNG)...” and ... “You cannot include some habitat schemes in BNG calculations at all. There are other schemes that you can include:

-  *In full - for enhancing actions, such as green infrastructure (a developer can satisfy all their BNG requirements through the works, receiving 110% of their biodiversity units through them)*
-  *In part - for mitigation and compensation actions, such as nutrient mitigation (at least 10% of the developer’s biodiversity units must come from additional activities other than mitigation and compensation)”*

As part of this guidance, it states that “Mitigation or compensation to a Special Area of Conservation, Special Protection Area, or Protected Species” can count towards BNG in part. This is referred to as the Additionality Principal.

Full details on BNG are detailed in the BNG Statement GE, 2026b), and this outlines that the current indicative scheme design for the Outline Permission is outlined in **Tables 2** below:

Table 2: BNG Assessment

Unit Type	Onsite Baseline Units	Onsite Post-Development Units	Net Unit Change	% Change
Habitat	16.47	16.68	+0.21	+1.28%
Hedgerow/Linear	2.76	3.51	+0.74	+26.89%

As such, this demonstrates that the scheme can ensure no net loss of habitats on Site. It is anticipated that any future Reserved Matters application will include refinement to the scheme design, and as such the BNG Assessment will be updated to reflect this.

In addition, as outlined above, the Site lies within the Yellow (Medium) Risk Zone and new developments must where appropriate, contribute to strategic habitat mitigation, which presumably would include SANG and other habitat provision, albeit this is not particularly clear. The TWBMS costs this at £972.03 per dwelling, which based on the scheme proposals of up to 80 dwellings would result in a cumulative

¹⁰ <https://www.gov.uk/guidance/what-you-can-count-towards-a-developments-biodiversity-net-gain-bng>

contribution of £77,762.40 to be secured section 106 agreement (s106), a section 111 agreement (s111) or unilateral undertaking (UU).

A Habitat Mitigation and Monitoring Plan (HMMP) will be produced detailing the methods and strategies to manage these habitats, as well as providing details of the funding mechanisms and timescales for management. As required by the Bath and Bradford-on-Avon Bat SAC Planning Guidance for Wiltshire Document and the TWBMS, habitats will be managed for horseshoe bats in perpetuity.

As such, it is considered that, with the above mitigation and habitat enhancement/creation measures described above, **there will be no AEOI to the bat populations associated with the Bath and Bradford-on-Avon Bats SAC as a result of habitat loss/fragmentation.**

5.3.4 Loss/Disruption of Foraging/Commuting Habitat through Lighting

All three species associated with the Bath and Bradford-on-Avon SAC are generally light-averse woodland specialists, preferring to commute/forage within woodlands, along the edges of woodland or along woodland glades/rides. Lighting levels of under 0.5lux are required to ensure continued use of commuting routes (Stone, 2013) (unless baseline conditions already exceed this level). Lighting can cause avoidance of commuting routes and a change in the abundance of available insect prey. Fragmentation via lighting can cause bats to fly further to reach foraging grounds which could result in increased energetic costs, higher risk of predation and roost abandonment (Stone, 2013). In the absence of mitigation, lighting within the new development has the potential to cause disruption or loss of these commuting/foraging routes and as such it is considered that, in the absence of mitigation, the development could have a permanent adverse effect on the local populations of all three species.

As highlighted by Engain (2023), the Site's connectivity to the Bechstein's Core Roosts to the south is inhibited by existing sources of artificial lighting from the adjacent A361 (via street lighting) as well as from Trowbridge Rugby Club to the east. The existing lighting illuminates the southern part of the Site and the southern end of the tree-lined path that forms the Site's eastern boundary as shown on Plates 4, 5 and 6 below.

Plate 4: View east towards A361 in southern part of the Site



Plate 5: View east along A361 opposite the Site



Plate 6: Trowbridge Rugby Club



In addition, there is some existing residential light spill both from the adjacent dwelling to the west, and via a static caravan in northeast corner of the Site.

Unmitigated, the scheme will result in new sources of artificial lighting which could result in fragmentation/severance to commuting routes for SAC bats.

Historic concerns from WC that the Site forms a choke point along the eastern edge of Trowbridge are not supported by the data collected. However, even if it were the case, that the feature was of significance, it should be acknowledged that development can proceed where adequate mitigation can be put in place to retain the functionality of the habitat. As such the scheme includes an extensive 50m buffer along the eastern boundary of the Site has been included and will be completely unlit to ensure long-term permeability of the Site and the wider landscape as shown in the submitted Lighting Strategy Plan (Highway Lighting Solutions, 2026), **Appendix 1** refers.

During operation, no lighting is to be directed at the hedgerows and woodland, allowing continuous corridors for bats to be maintained. Whilst a certain level of lighting throughout the Site is necessary for the health and safety of future residents, the strategy includes measures to reduce the impact of this lighting on local fauna including the identification of sensitive zones (in the case of this scheme, the 50m buffer and other boundary buffers) to ensure darker areas are maintained/created to protect important commuting and foraging routes. Lighting within these areas will be kept to an absolute minimum. Best practice technology should be employed to reduce light-spill, for example LED lighting, luminaires with peak wavelengths higher than 550nm, no upward light-spill and/or a part-night lighting regime, in line with current guidelines (Bat Conservation Trust/ Institute of Lighting Professionals, 2023). Key bat habitats, namely the eastern 50m buffer, should be maintained (as per the TWBMS) at no more than 0.2lux on the horizontal plane and less than 0.4lux on the vertical plane lux (or baseline light levels).

Any necessary external lighting throughout the Site will be designed with no spill to exceed the boundaries, particularly along the eastern boundary. Where brighter lighting is necessary, i.e. around parking spaces and primary footpaths, luminaires will be directional with no upward, sideways or outward spill and fitted with shields where necessary to maintain darker areas along the woodland edges.

Whilst the lighting will invariably be increased in some areas, the impact of this is considered to be minimal providing a sensitive lighting strategy is developed in-line with the above measures and adhered to. It can therefore be concluded **there will be no AEOL to the bat populations associated with the Bath and Bradford-on-Avon Bats SAC as a result of lighting.**

5.3.5 Disturbance during Construction Works

There is potential for impacts as a result of disturbance through noise, vibration and construction lighting during construction and enabling works.

Construction will be restricted to daylight hours, finishing at least 30 minutes before sunset and commencing at least 30 minutes after sunrise throughout the year. If this is not possible, no construction lighting will be allowed to spill onto boundary hedgerows, tree lines or adjacent watercourse and woodland habitats, ensuring light averse species can continue to utilise the Site and wider area during the construction period.

A Construction Ecological Management Plan (CEMP) will be produced providing details and mechanisms through which this area will be protected during construction.

As such, it is considered that, with the mitigation described above, **there will be no AEOL to the bat populations associated with the Bath and Bradford-on-Avon Bats SAC as a result of construction disturbance.**

5.3.6 Increased Recreational Pressures

The TWBMS highlights the potential for increased recreational pressures on woodlands which support bats associated with the Bath and Bradford on Avon Bat SAC. As such a ZoI has been developed around these roosts (the Grey Hatched Zone) within which, new residential development is expected to result in increased recreational pressure (and therefore adverse effects) on key woodland bat sites. The TWBMS requires that “*New residential development proposals for 50 or more houses within this zone will be expected to provide mitigation in the form of SANG / sufficient natural recreational focused greenspace; and new residential development proposals for less than 50 dwellings within this zone will be expected to make a financial contribution towards the delivery of strategic mitigation to address recreational pressure on the woodland sites*”. Suitable Alternative Natural Greenspaces (SANGs) is the term given to greenspaces that are created or enhanced with the specific purpose of absorbing recreation pressure that would otherwise occur at designated nature conservation site, particularly European wildlife sites. SANGs are created, or existing greenspaces enhanced to create a SANG, in order to mitigate for the effects of new housing development, absorbing the level of additional recreation pressure associated with the new development. It is understood that this is in addition to the contributions being sought for ‘strategic’ bat habitat mitigation within the ‘Yellow Zone’, to mitigate for the loss of bat habitat, as opposed to recreational pressure.

The proposals are for 80 dwellings, and therefore it is expected that the Site should provide mitigation in the form of SANG / sufficient natural recreational focused greenspace. The revised TBMS is clear throughout that ‘*sufficient natural recreational focused greenspace*’ is an alternative option for mitigation to a strategic-scale SANG, and this is a reasonable approach to take within the guidance given that it cannot reasonably be expected for a 50 dwelling scheme to provide the same level of mitigation as an 800-dwelling scheme. Appendix 1 of the TWBMS provides SANG design standards which requires SANGs to be in the order of 30ha in size, with a further recommendation of 8 hectares of open greenspace per 1,000 new residents / people as detailed in guidelines on SANG creation, which is based on the average of 2.4 people per household. Such SANG ideally would not be delivered on a Site-by-Site basis and needs to be delivered strategically as per the wider national approach to recreational pressures on European Sites (i.e. Thames Basin Heaths SPA, Cotswold Beechwoods SAC, Severn Estuary SPA, Dorset Heaths SPA etc).

Based on the number of dwellings proposed via this outline application (up to 80), this results in an average occupancy level of 192 residents. If one were to utilise the guidance therefore, the scheme should require c. 1.536ha of SANG or ‘*sufficient natural recreational focused greenspace*’.

The proposals incorporate a significant amount of greenspace to the east of the site, as well as additional public open space throughout. When taking only this eastern greenspace into account, this equates to circa 1ha of the Site (which would leave circa 0.46ha remaining for the scheme proposals to mitigate for), and would provide links out to the wider countryside for walking purposes. It is proposed that this greenspace should be delivered prior to first occupation of the development.

In addition to this, it is recognised that the Draft Local Plan puts forward site allocations for major residential development in Trowbridge and Westbury (for which the Development Site forms part of the wider Trowbridge allocation for 600 homes) which have potential to increase recreational / visitor pressure on the woodlands that support Bechstein's bats. As such, two strategic SANGs have likewise been allocated in the draft Local Plan; one in Trowbridge and one in Westbury. The strategic SANGs / Country Parks proposed in Trowbridge and Westbury have been allocated by means of Policy 54: North Trowbridge Country Park and Policy 63: Westbury Country Park respectively, albeit it should be recognised that alternative SANG provision could come forward to mitigate for development if those sites weren't to come forward. At the time of writing, the Inspectors who are examining the new Local Plan have not confirmed whether this mitigation is appropriate or acceptable and this will be monitored.

However, the location of the strategic SANGs / Country Parks has been selected by the Council so as to maximise the potential for use by new residents of the site allocations in Trowbridge and Westbury put forward in the draft Local Plan and is currently proposed to be located between the strategic site allocations for major residential development and the closest woodlands that support Bechstein's bat roosts. This is to ensure that the SANGs / Country Parks are appropriately located to intercept residents that may otherwise visit the woodlands.

The allocated SANGs / Country Parks should be designed to provide attractive greenspace alternatives to the sensitive woodlands, as per the guidance set out above.

Accordingly, whilst it is considered that sufficient alternative natural recreational space will be provided on site, it is recognised that the Site forms part of a wider allocation and should contribute towards strategic SANG provision. In accordance with the TWBMS guidance therefore, it is anticipated that the applicant would provide financial contributions to Wiltshire Council via s106/s111/UU at the rate as outlined in the TWBMS of £925 per dwelling. Assuming up to 80 dwellings, this would comprise total contributions of £74,000.

In conclusion, whilst the scheme will include extensive areas of greenspace (both for wildlife and for recreational uses), it is considered disproportionate and unfeasible to deliver SANG on site, and suitable natural alternative greenspace has been provided instead which will be delivered in advance of the first occupation of homes. In addition, the proposals will contribute to wider SANG provision as per the TBMS guidance. **As such, through the implementation of the above measures, no AEIOI on the SAC is anticipated.**

6 Cumulative Assessment

Cumulative assessment (In-combination assessment) is a key part of the HRA process, as it seeks to identify whether any residual effects below the threshold for AEIOI but where plans or project could cumulatively result in an AEIOI upon a designated site.

However, as the assessment above does not identify any residual effects from the identified impact pathways, **there is no potential for AEIOI of the SAC via cumulative impacts.**



7 Summary Assessment and Conclusions

Likely Significant Effects (LSE) was identified as a result of the development proposals upon the Bath and Bradford on Avon Bat SAC. The Appropriate Assessment identified that the proposed development should be undertaken in accordance with the mitigation detailed in within this sHRA with the development also providing a financial contributions as per the Strategic Mitigation as outlined in the TWBMS. Assuming that the mitigation measures are implemented as proposed, it can be concluded that there will be no AEOL, either alone or in-combination with other projects, resulting from the scheme.

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Appendix 1 – Adoptable S38 Lighting (Highway Lighting Solutions)



S38 ROAD LIGHTING SCHEDULE:

Galvanised tubular stepped steel lighting column. 5m height, internal & external glass flake root to 250mm above ground. CU Phosco: R2505T01/WILTS. Urbis Axia 3.1 16LED lantern. Warm white LED (2700K). Black canopy. 76mm dia post top mounted at 0 degree tilt. Code: Axia 3.1 C3.5 2.7K 16 Oslon square giant 640mA. Optic:52673 (3.50klm, 23w). Osram Optotronic 4DIM suitable for Telensa CMS DALI auto switch (Note: sensor ready may need to be factory disabled). Lantern complete with a 7 pin NEMA socket (option for Zodion SS6 20lux photocell). Lantern as specified in WC matrix: C3.5-2.7K. UMSUG code: 42 0023 0000 100

Galvanised tubular stepped steel lighting column. 5m height, internal & external glass flake root to 250mm above ground. CU Phosco: R2505T01/WILTS. Urbis Axia 3.1 8LED lantern. Warm white LED (2700K). Black canopy. 76mm dia post top mounted at 0 degree tilt. Code: Axia 3.1 A1.0 2.7K 8 Oslon square giant 270mA Optic: 52963 (1.08klm - 7w). Osram Optotronic 4DIM suitable for Telensa CMS DALI auto switch (Note: sensor ready may need to be factory disabled). Lantern complete with a 7 pin NEMA socket (option for Zodion SS6 20lux photocell). Lantern as specified in WC matrix: A1.0-2.7K. UMSUG code: 42 0007 0000 100

DIMMING REGIME: D19

Dimming to be applied to all adoptable lanterns. Manufacturer set lantern dimming to 75% output from 8pm to 11pm and 50% output from 11pm to 6am. Rest of time output at 100%. All equipment to be ordered compliant with Wiltshire Specification.

ADOPTABLE STANDARD EQUIPMENT POWER SUPPLIES:

Road lighting columns to be supplied via un-metered statutory low voltage supply. Preferably District Network Operator (DNO). If an IDNO is to be used for power supply networks, then a service level agreement must be in place prior to commencement of works. Without such agreement, scheme will not be adopted. Internal wiring to be 2.5mmsq, 3 core flexible arctic grade 230v (Blue). Charles Endirect (L2/SF/A1/4.0x300 tails) or Lucy Lighting (TR2-PP20-EB2-LD06-06) 32A double pole, single fused isolator to Wiltshire Council specification to be installed within lighting column above DNO cut out. Network provider: **TBA by Client.**

GENERAL SCHEME NOTES:

- Any alterations to the positions of columns and / or associated equipment to that as shown on this drawing should be referred to the designer to ensure compliance with lighting level requirements. Following technical approval, any change to column locations or equipment specification will require re-submission to Wiltshire Council (WC) for further review /approval.
- Adoptable columns to be located to back of footway within adoptable land or to rear of service strip or to a minimum of 0.5m back of kerb into soft verge. Where columns are located in un-adopted land, an adoptable build out to WC specification, connected to the adoptable highway is to be built and included on the adoptable coloured plan agreement. Ease of access for maintenance purposes must be considered.
- All electrical and equipment installation works are to be carried out in accordance with the Electricity at Work Regulations 1989, requirements of the latest edition of the IEE wiring Regulations BS7671, manufacturers instruction and where adoptable, to current WC residential specification (currently RevS under review).
- All column doors to face away from on coming traffic unless access restricted or otherwise specified. Ensure correct orientation of lanterns to kerb at 90deg as shown.
- Final column numbers will be provided by WC following technical approval of lighting proposals. Numbering to be affixed to adoptable columns in line with Wiltshire Council specification. Numbering standard detail (SD/1400/10). Numbers to be affixed 2m above ground facing carriageway.
- In order to avoid future maintenance issues, the planting of trees and shrubbery in the vicinity of street lighting equipment is to be avoided. Where new lighting columns are to be planted, any proposed trees in close vicinity <4m should be reviewed and re-located.
- Any additional private area lighting or private wall mounted luminaires being installed onto property walls by Developer should be carefully selected to ensure power efficiency, suitable low wattage and light output avoiding over illumination, glare & light pollution.
- Locations of street lighting units should be included on sales plans for buyer information prior to purchase.

WILTSHIRE COUNCIL SPECIFIC NOTES:

- ALL NEW LIGHTING INSTALLATIONS MUST INCLUDE FOR TELENESA CMS. NEW 7 PIN NEMA MOUNTED TELECELLS WITH INTEGRAL GPS AND DALI DIMMING - T2-E1-NB-3 BLACK. TO BE AFFIXED TO EACH LANTERN.
- WHERE NECESSARY A BASE STATION WILL ALSO BE REQUIRED AS PART OF THE COMPLETE CMS SYSTEM.
- WITHOUT INSTALLATION OF TELECELLS, THE SITE SHALL NOT BE DEEMED ACCEPTABLE FOR ADOPTION.
- ALL STREET LIGHTING IS TO BE INSTALLED IN ACCORDANCE WITH WILTSHIRE COUNCIL MAINTENANCE SPECIFICATIONS AND APPROPRIATE STANDARD DETAILS. REFER TO SD/1300/02, SD/1400/01, SD/1400/05 AND SD/1400/10.
- CONTRACTOR TO ALSO REFER TO WILTSHIRE COUNCIL RESIDENTIAL LIGHTING AND NON RESIDENTIAL SPECIFICATION.
- UNITS POSITIONED BEHIND THE SERVICE STRIP OR WITHIN UN-ADOPTED LAND WILL REQUIRE A 1m sq FOOTWAY CONSTRUCTION BUILD OUT WHICH IS TO BE INCLUDED IN THE ADOPTION AREA / AGREEMENT PLAN.

LEGEND

- Site Boundary
- Location of existing road lighting columns included for reference only.
- Proposed trees - smaller, bushes.
- Bat commuting - 50m ecology zone.
- Lux contours for reference MF set to 1.
 - 0.60 Lux
 - 1.00 Lux
 - 3.00 Lux
 - 5.00 Lux
 - 7.00 Lux

ECOLOGY:

This lighting design considers Trowbridge Bat Mitigation Strategy, (Johns Associates Limited) of January 2020 and Environmental Consultants (Engain Ltd), requirements which address Planning Conditions for wildlife sensitive lighting. The development area falls within a Special Area of Conservation (SAC) with high importance for bats.

Artificial lighting causes disturbance to bats at the roost, their feeding behavior and commuting routes. This will have a severe negative impact on their survival. The extents to which this lighting strategy applies includes the whole site, but more specifically, to maintain controlled and dark zones along the Eastern side.

Lighting classes P4 & P5 provide appropriate low lighting levels for a new development within conservation designated area and is in accordance with WCC design guidance. Warm white LED light source 2700k is specified, providing lower UV & blue spectrum output. Columns are low height at 5m to minimise lighting impact and spill. Lantern optic settings have been optimised to provide good column spacing's thus reducing number of columns required. Light directed to efficiently illuminate roads, minimising light spill into sensitive areas. Lanterns are to be mounted at 0 degree tilt to prevent upward light pollution and sky glow. Dusk to dawn photocells may be installed for on/off switching as a temporary measure up to CMS node installation prior to Wiltshire Council accrual. LANTERN SET DIMMING will reduce the amount of light output and associated spill by 25% from 8pm to 11pm then down to 50% from 11pm to 6am. Dimming control for individual lanterns is flexible with option for further dimming or indeed lantern switch off (part night control) during periods of bat activity (to be confirmed by Lighting Engineer).

Lux contours are included on the drawing for reference. The maintenance factor has been set to 1 in contour calculation to show full light spread at scheme installation.

DESIGN METHODOLOGY AND NOTES:

- The development roads are to be extended during next phase design. The main spine road South to North is to be a bus route. Consequently, designer proposes illumination to P4 class (Eav=5.00 to 7.50, Emin=1.00). The main road is to be tree lined with offset pedestrian footpaths. Designer has specified 5m height columns with wide optic lanterns to throw illumination either side onto the offset footpaths. Option to increase column height to 6m for increased path lighting which WC may consider. Proposed lighting class for side roads P5 (Eav=3.00 to 4.50 Emin=0.60).
- All new lanterns may be fitted with temporary photocells as detailed for control prior to affixing CMS telecells.

EXTERNAL WALL MOUNTED LUMINAIRES:

All domestic exterior lighting will be carefully selected to prevent over illumination, glare and light pollution past property boundary. External luminaires are proposed to include integrated movement sensors. The timer should be set to switch the light source off after 60 seconds of detecting no movement. Front porch light should include an integrated PIR sensor & the rear garden light should include an integrated microwave-sensor. The fittings should not emit any direct upward light and should be low power (circa 7W), with a warm colour temperature (2700K or less). A single wall-pack style lantern with an asymmetrical distribution is proposed, in the centre of the rear facade of the building, such as the "Wolf Mini" by Ansell Lighting. The front porch lighting is proposed to be a downlight type producing no direct upward light such as the Palin PIR fixed wall downlight by Saxby Lighting.



Palin PIR



Wolf Mini

ECOLOGY ILLUMINANCE ZONES:

The extents to which this lighting strategy applies includes the main development area, Zone C where public lighting is provided to an appropriate BS EN Standard, along the adopted highways. In addition to low level public lighting, private lighting provided by wall mounted luminaires is also controlled as proposed by above recommended measures.

A 50m wide buffer zone to the East of the site is included, which is split into Zone A & Zone B. Zone B is set at 10m, where illumination spill is limited from 1 down to 0.2 horizontal lux at the boundary to Zone A. Zone A at 40m width will be maintained as a dark area. Designer has included red triangles onto building blocks adjacent to Zone B boundary which represent potential light sources such as the above wall mounted lanterns and spill from building windows. Designer is not able to include lux contours to indicate potential spill due to limited information and plan detail. However, with reference to a detailed assessment for similar buildings, light spill of 0.2lux falls to within a distance of 8m from building, which is 2m clear of proposed Zone A. In addition, property boundary fencing and landscape planting will further reduce any light spill from the buildings into zone B.

Adoptable lighting scheme proposals must be technically approved by adopting Authority before works commence. Any works prior to final technical approval will be conducted "at risk".

HEALTH & SAFETY

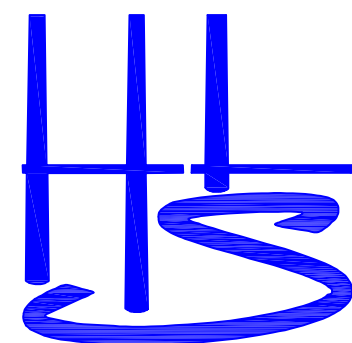
All installation and existing equipment removal works should be carried out by suitably qualified and competent persons in accordance with, but not limited to, G39 'working in the vicinity of (I)DNO equipment', 'working at height regulations', 'electricity at work regulations', safe digging practices HSG47 'avoiding danger from underground services' and 'code of practice for electrical safety and highway electrical operations'. G56 'avoidance of danger from overhead electric lines' and the Electricity Association engineering recommendation G39/1, safety code of practice E4 covering electrical safety and planning, installation, commissioning and maintenance of public lighting and other street furniture. Contractor advised to use suitable underground services locator in conjunction with services drawings prior to commencement of excavation works. New underground services and overhead cables may be installed following issue of this drawing and during phased works. Contractor must obtain most current and up to date services drawings and confirm exact locations of services prior to and during works. It is the responsibility of the installing organisation to undertake final due diligence and determine the exact location of any statutory undertakers services prior to commencement of works on site.

ANY PROPOSED WORKS ON EXISTING ADOPTED LIGHTING EQUIPMENT MUST BE APPROVED BY WILTSHIRE COUNCIL PRIOR TO COMMENCEMENT. ANY WORKS WITHOUT WC TECHNICAL APPROVAL WILL BE CONDUCTED AT RISK.

DRAWING ISSUED FOR COMMENT ONLY
NOT FOR CONSTRUCTION

04/02/26 Draft 2 Revised to Ecology requirements and widened buffer zone. Issued for comment.
29/01/26 Draft 1 Issued to Client for comment.

HIGHWAY LIGHTING SOLUTIONS Ltd



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Project:

Redcliffe Homes
Adoptable S38 Lighting

Location:

AGR_ _ _
Land Off Devizes Road, Hilperton

Drawn by:	Ken Duckers	Date:	22/01/26
Checked by:	Ian Buckley	Date:	
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Sheet:	1 of 1	Revision:	Draft 2

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