

# A428 Black Cat to Caxton Gibbet improvements

TR010044

Volume 9

9.13 Eversden and Wimpole Woods SAC Technical Note

Planning Act 2008

Rule 8(1)(k)

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Rules 2010

August 2021

Infrastructure Planning

Planning Act 2008

**The Infrastructure (Examination Procedure)  
Rules 2010**

**A428 Black Cat to Caxton Gibbet  
improvements  
Development Consent Order 202[ ]**

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**9.13 Eversden and Wimpole Woods SAC Technical Note**

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<b>Author</b>	A428 Black Cat to Caxton Gibbet Improvements Project Team, Highways England

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## 1 Introduction

- 1.1.1 This Technical Note has been prepared by Highways England (the Applicant) in response to Action no. 6 arising from the Issue Specific Hearing 1 held on 18 August 2021 **[EV-016]**, at which the Examining Authority (ExA) requested that a note be prepared and submitted by the Applicant at Deadline 1 of the Examination to:
- a. Update next steps agreed with Natural England on surveys and tracking of bats from the Eversden and Wimpole Woods Special Area of Conservation (SAC).
  - b. Provide information on the functional relationship between the bat roosts at Eversden and Wimpole Woods SAC and roosts in the surrounding areas.
- 1.1.2 The ExA also requested that a copy of the meeting notes from a workshop held on 23 August 2021 between the Applicant and Natural England also be included within this Technical Note. The main objectives of this workshop were to:
- a. Provide essential information about the A428 Black Cat to Caxton Gibbet Improvement scheme (the Scheme), its landscape and biodiversity as context for the bat investigations and the relationship to the SAC.
  - b. Describe the bat investigations (surveys, bat trapping/tracking, analyses and assessment outcomes) relied upon within the project to ensure Natural England was clear on their purpose, scope, timings, coverage and how this has led to the conclusion of no likely significant effects on the SAC.
  - c. Clarify any aspects that may be unclear with the bat survey and assessment work undertaken and reported.
  - d. Agree, where possible, matters within Natural England's Relevant Representation **[RR-076]** relating to uncertainty surrounding the Habitats Regulations Assessment and its conclusions.
  - e. Determine the need for, and scope of, further bat surveys.
  - f. Identify and record current positions, in order to demonstrate progress to the ExA at Deadline 1.
- 1.1.3 The content of this Technical Note has been developed from a Clarification Note which was prepared by the Applicant and issued to Natural England on 20 July 2021, the purpose of which was to respond to Natural England's assertion that insufficient bat survey information has been provided within the Habitats Regulations Assessment: No Significant Effects Report **[APP-233]** to rule out likely significant effects on the qualifying feature (Barbastelle bat) of the SAC arising from the Scheme.



- 1.1.4 In addition to satisfying the matters identified within Action no. 6 [EV-016], this Technical Note responds to the following points raised by Natural England in its Relevant Representation [RR-076], and the ExA in its First Written Questions (Q1.3.4.2 & Q1.3.4.3) [PD-006]:
- a. Barbastelle bat ranges and SAC population interaction with the Scheme.
  - b. Suitability of the Scheme for winter foraging and hibernation.
  - c. Static detector surveys in winter.
  - d. Crossing point surveys.
  - e. Use of Advanced Licensed Bat Survey Techniques (ALBST) on the Scheme.
  - f. Functional bat linkages.
  - g. Cumulative (in combination) impacts.
- 1.1.5 This Technical Note is supported by the following appendices:
- a. **Appendix A** – which contains the notes of the workshop held on 23 August 2021, as requested by the ExA.
  - b. **Appendix B** – which contains “Figure 1: Scheme and SAC Location with Barbastelle Roosting and Range Information” and “Figure 2: Activity and Static Detector Locations” which support the written content of this Technical Note.
  - c. **Appendix C** – which contains details of further bat surveys to be undertaken by the Applicant within the remainder of 2021, the scope of which has been agreed between the Applicant and Natural England. Completion of the additional surveys is subject to obtaining the necessary consents and agreements.

## 2 Barbastelle bat ranges and SAC population interaction with the Scheme

2.1.1 Natural England comments that “*Barbastelle bats have been recorded travelling up to 20km from their roosts*”. Whilst the Applicant acknowledges this published statistic on maximum commuting/foraging ranges, the average foraging/commuting range from roosts is between 4.5km<sup>1</sup>, and 6.8km<sup>2</sup>, i.e. significantly less than 20km and less than 8.1km, the shortest distance from the SAC to the Scheme Order Limits.

2.1.2 Figure 1 in Appendix B shows:

- a. Impact Risk Zones, an online mapping tool developed by Natural England to make an initial assessment of the potential risks to the SAC posed by development proposals, for which the 5km and 10km reflect the particular sensitivities of Barbastelle, the feature for which the SAC is notified and which are the basis of the guidance on Barbastelle for the Greater Cambridgeshire Shared Planning: Biodiversity Supplementary Planning Document (SPD) (Draft) June 2021<sup>3</sup> produced on behalf of Cambridge City Council and South Cambridgeshire District Council);
- b. the 6km Core Sustenance Zone (CSZ) for Barbastelle which refers to the area surrounding a communal bat roost within which habitat availability and quality will have a significant influence on the resilience and conservation status of the colony using the roost (Bat Conservation Trust (2016). Core Sustenance Zones: Determining zone size<sup>4</sup>);
- c. the core area for the SAC population of Barbastelle produced using data from studies of the SAC in South Cambridgeshire District Council’s Local Development Framework: Biodiversity – Supplementary Planning Document (SPD) (July 2009)<sup>5</sup>; and
- d. the extent of breeding female Barbastelle ranges gathered from surveys undertaken by others from 2020 (based on 96% kernel analysis).

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<sup>1</sup> C. Dietz, O. van Helveson and D. Nil. 2009. Bats of Britain, Europe and North-west Africa. London: A & C Black

<sup>2</sup> Matt R. K. Zeale, Ian Davidson-Watts, Gareth Jones, Home range use and habitat selection by barbastelle bats (*Barbastella barbastellus*): implications for conservation, Journal of Mammalogy, Volume 93, Issue 4, 14 September 2012, Pages 1110–1118, <https://doi.org/10.1644/11-MAMM-A-366.1>

<sup>3</sup> Greater Cambridge Shared Planning (2021). Biodiversity Supplementary Planning Document DRAFT June 2021

<sup>4</sup> Bat Conservation Trust (2016). Core Sustenance Zones: Determining zone size. Available at: [https://cdn.bats.org.uk/pdf/Resources/Core\\_Sustenance\\_Zones\\_Explained\\_-\\_04.02.16.pdf?1541085349](https://cdn.bats.org.uk/pdf/Resources/Core_Sustenance_Zones_Explained_-_04.02.16.pdf?1541085349)

<sup>5</sup> South Cambridgeshire District Council. Local Development Framework: Biodiversity – Supplementary Planning Document (Adopted July 2009). Available at: <https://www.scambs.gov.uk/media/17068/biodiversity-supplementary-planning-document.pdf>

- 2.1.0 These average ranges and the bat tracking studies at the SAC (see Figure 1 (a-c) in Appendix B) have been used to illustrate the area of land that contains habitat functionally connected to the SAC. These were also used to inform survey requirements for the Scheme. The SAC core area for the SAC population of Barbastelle ((c) above) was taken into account as this was a material planning consideration in the determination of planning applications by South Cambridgeshire District Council at the time the bat surveys were scoped.
- There are also data on Barbastelle foraging areas gained from various surveys described below. These data are illustrated on Figure 1 in Appendix B and indicate that the range extends to a maximum of 9km to the east of the SAC and approximately 6km from the Scheme. This demonstrates that Barbastelle from the SAC do not interact with the land within the Scheme's Order Limits.
- 2.1.1 Barbastelle radio-tracking studies undertaken by Cambridgeshire Bat Group in the 2000s<sup>6</sup> show that bats associated with the SAC have not been recorded along the Scheme.
- 2.1.2 Surveys undertaken by others in 2020 sought to further understand the foraging and commuting routes and roost locations of the SAC's Barbastelle population. The results of these surveys show the SAC population has no interaction with the Scheme, with bat movements mainly to the east of the SAC, similar to results of the previous studies that were used to inform the area of functionally linked habitat in the adopted 2009 SPD. Figure 1 in Appendix B shows the known Barbastelle roosts based on background information and their foraging/commuting ranges from the SAC.
- 2.1.3 Bat activity transects and static modelling points undertaken by the Applicant in the Caxton Gibbet area, at the eastern end of the Scheme closest to the SAC (>8km), comprised large open arable fields and the existing A428 (the eastern part of which is a dual carriageway) with some hedges of low value for commuting and foraging bats. The location of the bat activity transects (transects 6 and 8) and static modelling points (static detectors S11, S12, S15 and S16) are illustrated in Figure 2 in Appendix B. From the static detector surveys undertaken, four Barbastelle passes were recorded during October 2019, one at static modelling point 15 and three at static modelling point 16. Both points were located along Transect 8. Further details of the static detector surveys and transects are presented in Appendix 8.5, Bats [APP-192] of the Environmental Statement.
- 2.1.4 There is therefore a considerable body of data relating both to Barbastelle activity in the area around the Scheme and habitat usage by the Barbastelle population of the SAC, none of which suggests there is a connection between the SAC and the land within the Scheme's Order

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<sup>6</sup> Cambridgeshire Bat Group *pers. comm* unpublished.

Limits. Moreover, there is very limited potential summer or winter roosting habitat for Barbastelle along the Scheme<sup>7</sup>. What there is, comprises of mainly hedgerow trees. The majority of land within the Scheme's Order Limits (89%) comprises habitats that are largely avoided by Barbastelle (arable (72%), improved/amenity grassland (10%) and urban habitat (7%)). The Scheme avoids all suitable woodland habitat i.e. mature woodlands.

- 2.1.5 Based on surveys from 2018 to 2020, no Barbastelle roosts were found within the Scheme's Order Limits within these hedgerow trees; two roosts of this species were found to the west of the Scheme at 150m and 1km distance from the Scheme and >14km from the SAC. There is thus no actual evidence for any connection between the habitat in the area of the Scheme and the SAC, despite the considerable amount of available data and all the available objective evidence, which therefore supports the Applicant's reported conclusion of no likely significant effect within the Habitats Regulations Assessment: No Significant Effects Report **[APP-233]**.

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<sup>7</sup> Matt R. K. Zeale, Ian Davidson-Watts, Gareth Jones, Home range use and habitat selection by barbastelle bats (*Barbastella barbastellus*): implications for conservation, *Journal of Mammalogy*, Volume 93, Issue 4, 14 September 2012, Pages 1110–1118. Available at: <https://doi.org/10.1644/11-MAMM-A-366.1>

### 3 Suitability of the Scheme for winter foraging and hibernation

- 3.1.1 Surveys completed based on the bat survey methods are described in Appendix 8.5 [APP-192] of the Environmental Statement. Surveys identified that there was no suitable habitat to the eastern end of the Scheme to support summer or winter roosting Barbastelle. This was indicated by habitat assessment showing a landscape dominated by habitats generally avoided by foraging Barbastelle<sup>8</sup>, comprising large intensively managed arable fields (72%), improved/amenity grassland (10%) and urban habitats (7%) and supported by the fact that activity or roost survey results did not record any Barbastelle roosts and low activity. The eastern end of the Scheme is the area closest to the SAC and is well outside the area of functionally linked habitat in the adopted 2009 SPD<sup>9</sup> and Natural England's Impact Risk Zone (5km and 10km) for the SAC<sup>10</sup> (see Figure 1 in Appendix B).
- 3.1.2 Throughout the other areas of the Scheme, two potentially more suitable mature broad-leaved plantation woodlands located adjacent to the Scheme – North Lodge Plantation and Boys Wood – were identified in 2018 with some potential roosting suitability for Barbastelle (see Figure 1 in Appendix B). This was based on nearby transect and static detector records of Barbastelle as well as the habitats present. As a result, additional survey work was undertaken to further investigate these adjacent woodlands for roosting Barbastelle.
- 3.1.3 At North Lodge Plantation (located north of Croxton Park in the middle of the Scheme), no Barbastelles were trapped. This outcome is not surprising given that this small area of woodland (approximately 12.5ha) is largely plantation with limited suitable roosting trees.
- 3.1.4 Due to a lack of both Barbastelles and suitable roosting features at North Lodge Plantation, the surveys then focused on Boys Wood (located to the west of the Scheme). Boys Wood is located approximately 150m from the Scheme and approximately 14km from the SAC. Trapping avoided the time when bats were giving birth and were undertaken from August to October 2018, and July to October 2019 (see Section 6). The surveys resulted in two Barbastelles tracked to roosts within 1km of the Scheme.

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<sup>8</sup> Matt R. K. Zeale, Ian Davidson-Watts, Gareth Jones, Home range use and habitat selection by barbastelle bats (*Barbastella barbastellus*): implications for conservation, *Journal of Mammalogy*, Volume 93, Issue 4, 14 September 2012, Pages 1110–1118. Available at: <https://doi.org/10.1644/11-MAMM-A-366.1>

<sup>9</sup> South Cambridgeshire District Council. Local Development Framework: Biodiversity – Supplementary Planning Document (Adopted July 2009). Available at: <https://www.scambs.gov.uk/media/17068/biodiversity-supplementary-planning-document.pdf>

<sup>10</sup> Draft Biodiversity Supplementary Planning Document (SPD) was published by Greater Cambridge Shared Planning (on behalf of Cambridge City Council and South Cambridgeshire District Council) in June 2021. Available at: <https://www.greatercambridgeplanning.org/media/2316/gcsp-biodiversity-planning-doc.pdf>

- 3.1.5 As further indication of low suitability, follow up roost surveys were undertaken in August and September 2020 at the Boys Wood tree roost closest to the Scheme, in order to determine the extent of use by Barbastelle. The surveys failed to find any Barbastelle, indicating likely occasional/transitory use only.
- 3.1.6 The lack of Barbastelle and low numbers of Barbastelle trapped only late in the season in October 2018 and 2019 at one site is most likely due to transitory roosting and the generally unsuitable roosting habitat that would be impacted by the Scheme. Sufficient data were recorded for the purpose of roost identification and other less invasive techniques collected data throughout the season during other surveys i.e. bat activity, roost presence/absence and crossing point surveys to identify the higher value bat foraging/commuting habitats associated with the Scheme.
- 3.1.7 The absence of Barbastelle summer/transitional roosts within the Scheme, the lack of suitable winter habitat, along with distance from the SAC and the consistency of Barbastelle bat behaviours provide considerable evidence to conclude that there is not a summer or winter foraging link between the SAC and the land within the Scheme's Order Limits.

## 4 Static detector surveys in winter

- 4.1.1 Natural England has advised undertaking autumn/winter static detector surveys along key sections of the Scheme to determine its value for winter foraging and hibernating bats [RR-076]. Upon further discussion with Natural England, and without prejudice to the Applicant's position that sufficient information has already been provided to rule out likely significant effects, a scope has been finalised regarding surveys to identify if bats from the SAC may be crossing the Scheme in autumn/winter.
- 4.1.2 With regard to the wider comment regarding winter foraging habitat along the Scheme, it is the Applicant's view that there is no suitable winter Barbastelle habitat within the Scheme; however, to provide further evidence to reinforce this assessment, further habitat suitability, static and crossing point surveys will be undertaken.
- 4.1.3 Details of the scope of the surveys to be undertaken by the Applicant, subject to obtaining the necessary consents and agreements, in response to Natural England's Relevant Representation [RR-076] are presented in Appendix C.



## 5 Crossing point surveys

- 5.1.1 Crossing point surveys were undertaken at seven locations along the Scheme in 2019 as an additional technique to assess importance for commuting bats, potential collision risk and locations for mitigation features such as crossing point structures. The surveys were not scoped to necessarily pick up later commuting/foraging bats and other data from the 50 transects surveyed, and static data collected over 561 nights was primarily used to assess the importance of the Scheme for foraging and commuting bat species (see Figure 2 in Appendix B). The seven crossing points were considered representative out of 40 linear features which the Scheme bisects, the selection of which were informed by bat activity recorded in 2018 and the location of the Scheme.
- 5.1.2 The crossing point method was not intended to survey every possible feature, nor was this designed to be the main survey method to determine the baseline for the conservation importance of the foraging/commuting bat assemblage. This was an additional and proportionate survey and did not intend to survey in detail every place a bat might go, but rather be sufficient for ecological assessment purposes, to help identify the most important locations and routes and assess the relative importance of the landscape and features for bats.



## 6 Use of Advanced Licensed Bat Survey Techniques on the Scheme

### Overview

- 6.1.1 The use of ALBST on the Scheme was dictated by the presence of habitat to support Barbastelle bats. The habitats encountered are presented in Appendix 8.20 [APP-207] of the Environmental Statement, and an assessment of habitat suitability for bats is presented in Appendix 8.5 [APP-192] of the Environmental Statement.
- 6.1.2 As stated in Section 3, North Lodge Plantation is a mature broad-leaved plantation woodland located in the middle of the Scheme that was given initial consideration as potential Barbastelle bat habitat; however, when ALBST was completed on this area, no Barbastelles were trapped. There was no further bat habitat identified along the eastern part of the Scheme.
- 6.1.3 Natural England has advised in its Relevant Representation [RR-076] that the home range of the maternity colonies main foraging area and flight lines, as well as the seasonal changes in habitat use in the Barbastelle population, need to be identified in order to determine how they may be impacted by the Scheme i.e. severance of key areas. However, as illustrated on Figure 1 in Appendix B, this has been undertaken for the SAC as recently as 2020. Additionally, as part of the Scheme, the Applicant has identified commuting routes and activity throughout the main active year into autumn (April to October) for all bat species identified, and since all species of bats are protected species, the Scheme has been designed to ensure that connectivity is not disrupted.

### 5km tracking distances clarification

- 6.1.4 The wording regarding 5km tracking distances in the method in Appendix 8.5 [APP 192] of the Environmental Statement states “*that locating tagged Barbastelle bats was undertaken from accessible land up to 5km beyond the Order Limits*” has been queried by Natural England in its Relevant Representation [RR-076]. The Applicant acknowledges that this statement is poorly worded, and that the distance stated is based on what actually occurred and that bats were actually tracked as far as needed to their roost sites.
- 6.1.5 In the case of the three Barbastelles tagged and tracked in 2019, it was highly unlikely for bats to go further than 5km as they had been trapped soon after expected emergence times (between 38 to 54 minutes); therefore they must have been roosting locally as indicated by one of the bats re-found in the same woodland and the second nearby approximately 1km to the west. The third bat was not found despite surveys extending to a suitable woodland approximately 6km from the trapping site and approximately 5km to the south-west of the Scheme. The most likely

explanation for not finding the third bat was that the transmitter failed for various reasons, poor battery, broken/damaged by the bat or at the roost, or fell off and broken over, for example a road or water. The likelihood of a Barbastelle trapped close to sunset moving further from the Scheme and potentially 15km to the SAC is highly unlikely.

### **Locations and seasonality of trapping surveys and numbers of barbastelle trapped and tagged**

- 6.1.6 The main aim of the trapping was to locate any Barbastelle roosts within or close to the Scheme, and to help identify *Myotis* species.
- 6.1.7 As there was very limited suitable habitat identified for trapping (i.e. woodlands), all were located adjacent to the Scheme rather than within the Order Limits. Habitats in the eastern parts of the Scheme along the existing A428 consists of large arable fields, with some limited suitability at North Lodge Plantation (see Figure 1 in Appendix B) and some small areas of woodland to the west and all are adjacent to the Scheme.
- 6.1.8 At North Lodge Plantation, initial trapping was undertaken in July 2018, close to where a Barbastelle pass had been recorded on a transect survey. Due to a lack of Barbastelle activity (based on bat detectors used during the survey and lack of bats trapped) and poor roosting habitat suitability (plantation woodland), the survey effort to trap bats was moved to Boys Wood, to the west of Scheme. This was also a plantation woodland, with a some more mature trees around the boundary and approximately 150m from where Barbastelle had been recorded in low numbers of transect and static detector surveys within the Scheme.
- 6.1.9 Surveys commenced on 8 August 2018 and it was only during the final survey on 2 October 2018 that two female barbastelle were caught in Boys Wood. A project licence was subsequently obtained to tag bats for the following season, and this was undertaken in 2019 to attempt to locate roosts of these species.
- 6.1.10 Trapping was undertaken on 8 July, 20 August, 2 October and 16 October 2019. Two males and a female Barbastelle were caught on the last October survey 38 to 54 minutes after sunset, indicating nearby roosts. A male was tracked to a roost within the woodland and the female to a roost 1km to the west. Repeat visits from the following day until 25 October showed no change in roost location.
- 6.1.11 The low numbers of Barbastelle trapped reflect the low numbers of Barbastelle present along the Scheme (based on other data from the transect and static surveys). With regards to Natural England's comment on the restricted seasonality of surveys within its Relevant Representation [RR-076], low numbers of bats were caught from July to September and hence it is unlikely that higher numbers of bats would have been caught in April/May when there are less suitable weather conditions, lower insect availability and less Barbastelle activity (as shown in the transect and static

data). In accordance with Natural England's guidance "*WML-G39: Guidance on the capture and marking of bats under the authority of a Natural England licence*"<sup>11</sup> the most appropriate time of year to capture and tag bats is later in the season. In spring (April/May) bats may be hungry, stressed and therefore vulnerable, having recently emerged from hibernation. Pregnant or lactating females are also vulnerable, particularly so late in pregnancy (varies but taken as mid-May to mid-July). Capture and tagging at these times should be avoided.

### **Surveys in the SAC**

- 6.1.12 Due to the distance between the Scheme and the SAC, trapping and radio-tracking surveys were focused around the Scheme to identify if Barbastelle bats were crossing the Scheme. All of the Barbastelles trapped and radio-tagged foraged and roosted within the land associated with the Scheme's Order Limits, and no use or link to the SAC was recorded.

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<sup>11</sup> WML-G39: Guidance on the capture and marking of bats under the authority of a Natural England licence. Natural England (2013). Available at: [https://webarchive.nationalarchives.gov.uk/ukgwa/20140605090108/http://www.naturalengland.org.uk/Images/wmlg39\\_tcm6-35872.pdf](https://webarchive.nationalarchives.gov.uk/ukgwa/20140605090108/http://www.naturalengland.org.uk/Images/wmlg39_tcm6-35872.pdf)

## 7 Functional bat roost linkages

- 7.1.1 In the context of the Scheme, there is no evidence that Barbastelle roosts identified as part of the Scheme surveys are functionally linked to the roosts present in the SAC. Of the bats tagged and tracked as part of the ALBST surveys in 2019, both Barbastelles were tracked to within 1km of the Scheme.
- 7.1.2 With regard to the wider area, evidence was presented as part of a workshop on Barbastelle in west Cambridgeshire organised by the Applicant on 5 November 2020. The workshop included data from the Cambridgeshire Bat Group and the Bedfordshire Bat Group, as well as from the Bourn Airfield development (planning reference S/3440/18/OL). The report to inform the Habitats Regulations Assessment for the Bourn Airfield development identified that “*a male barbastelle bat roosting at Bourn Airfield may be visited by females from the maternity colony in the SAC to mate*”<sup>12</sup>. For context, Bourn Airfield is approximately 4.4km from the SAC.
- 7.1.3 The evidence discussed at the workshop demonstrated that Barbastelles from the SAC used the more favourable landscapes to the east, west and south of the SAC, a point which was acknowledged by Natural England.

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<sup>12</sup> [https://applications.greatercambridgeplanning.org/online-applications/files/56784F08EBD88E4D1E62F33B5E42D877/pdf/S\\_3440\\_18\\_OL-Environmental\\_statement\\_Chapter\\_10.6\\_Report\\_to\\_inform\\_habitat\\_regulations\\_Appropriate\\_Assessment-4919693.pdf](https://applications.greatercambridgeplanning.org/online-applications/files/56784F08EBD88E4D1E62F33B5E42D877/pdf/S_3440_18_OL-Environmental_statement_Chapter_10.6_Report_to_inform_habitat_regulations_Appropriate_Assessment-4919693.pdf)

## 8 Cumulative (in combination) impacts

- 8.1.1 Section 5 (In-combination effects on European sites) of the Habitats Regulations Assessment: No Significant Effects Report **[APP-233]** concluded that in the absence of any impacts of the Scheme, there is no potential for in-combination effects to occur on the SAC when considered with other plans and projects.

## 9 Conclusion

- 9.1.1 The purpose of this Technical Note has been to clarify the information requested as part of the Natural England Relevant Representation **[RR-076]**, the ExA's First Written Questions **[PD-006]**, and comments made in the workshop held on 23 August 2021.
- 9.1.2 Methodological points have been further clarified and, where necessary, further information has been provided.
- 9.1.3 Where further surveys have been requested, the scope has been further clarified with Natural England regarding the surveys to take place and where necessary positions have been recorded between both parties to establish where areas of agreement exist on these issues sufficient for the Applicant to now embark on implementing the additional survey work, albeit without prejudice to the Applicant's position that sufficient information has already been provided to rule out likely significant effects on the SAC, and subject to obtaining the necessary consents and agreements.

## Appendix A: Minutes of bat survey workshop held 24 August 2021 between Natural England and the Applicant

# Minutes

**Meeting name**  
A428 Natural England  
Bat Workshop

**Meeting date**  
23.08.2021

**Meeting Time**  
11:00 – 12:45

**Project name**  
A428 Black Cat to  
Caxton Gibbet  
improvements scheme

**Prepared by**  
[redacted] sh

**Attendees**  
[redacted] (AECOM) – Environmental Lead  
[redacted] (AECOM) – Environmental Coordinator  
[redacted] (AECOM) – Environmental Coordinator  
[redacted] (AECOM) – Environmental Coordinator  
[redacted] (AECOM) – Environmental Coordinator  
[redacted] (AECOM) – Biodiversity Lead  
[redacted] (AECOM) – Bat Specialist  
[redacted] (Natural England) – Wildlife Management Senior Adviser  
[redacted] (Natural England) – Wildlife Management Lead Adviser  
[redacted] (Natural England) – Project Lead  
[redacted] (Skanska) – Environment Manager  
[redacted] (WBD) – Legal Advisor  
[redacted] (Natural England) – Procedural Advisor  
[redacted] (Highways England) – Environmental Advisor  
[redacted] (Mott MacDonald) – Environmental Consultant  
[redacted] (Mott MacDonald) – Environment Lead  
[redacted] (Mott MacDonald) – Ecologist

Ref	Meeting Minutes	Responsible	Due by
<b>Introductions (All)</b>			
01	<p>Introductions were made by all workshop attendees.</p> <p>VR noted during the introductions that she was only available until 12:00pm.</p>		
<b>Workshop Agenda</b>			
02	<p><i>Agenda: Slide 4</i></p> <p>JG explained the agenda for the workshop.</p>		
<b>Background and Work Objectives</b>			
03	<p><i>Background: Slides 6 and 7</i></p> <p>JG explained that the Rule 8 Letter was issued on Friday 20 August 2021, and that the Inspectorate has now updated its first round of Written Questions, with additional questions added – some of which relate to Habitats Regulations Assessment (HRA) and the assertion of there being functional linkages between the Scheme and Eversden and Wimpole Woods Special Area of Conservation (SAC).</p>		
04	<p><i>Workshop Objectives: Slide 8</i></p> <p>JG confirmed the objectives of the workshop to attendees.</p> <p>JG noted that Highways England wants to provide Natural England with the full context to the bat investigations and surveys undertaken by way of explaining the data relied upon in more detail and presenting our findings graphically, a key aim being to demonstrate to Natural England how the conclusion of no likely significant effects on the SAC has been reached. JG added that the HRA has referenced our own assessment data and data gathered by others over a period of some twenty years.</p> <p>JG went on to explain that this workshop seeks to clarify any aspects that are unclear to Natural England in relation to the surveys and assessments undertaken, with a particular focus on the matters raised within Natural England's Relevant Representation.</p> <p>JG clarified that Highways England wants to agree and close out any matters within Natural England's Relevant Representation that may stem from uncertainty or misinterpretation of the data, such that this can be incorporated within the Joint Position Statement which the Examining Authority (ExA) has requested be prepared and submitted at Deadline 1 of the Examination (31 August 2021). JG</p>		



emphasised the need to record positions clearly and outline agreed actions following the workshop, given the time constraints of the Examination timetable.

Before the presentation moved into more detailed matters, JG asked the attendees if they had any questions. No questions were raised.

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**Essentials of the Scheme and its landscape and biodiversity**

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05 *Route of the Scheme: Slides 10 and 11*

MW illustrated via the presentation slides the location of the Scheme from west to east, highlighting points relating to its relationship with the wider landscape which comprises mainly arable agriculture and is predominantly managed under intensive farming regimes.

MW noted key features of the Scheme, for example the Black Cat Junction, and explained how the new dual carriageway would pass over the River Great Ouse.

MW explained that the biodiversity team has had significant input in the routeing of the new dual carriageway and this has avoided important features and habitats during the design-development process. MW cited an example where the alignment of the new dual carriageway was moved further north to avoid Croxton Park, located south of the existing A428. MW added that as the alignment moves further north, the only recognised site of biodiversity value is Sir John's Wood (County Wildlife Site).

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06 *Barbastelle distribution across Cambridgeshire and Bedfordshire: Slide 12*

To provide context of Barbastelle bat as a species, MW discussed the content of the slide which illustrated Barbastelle distribution across Cambridgeshire and Bedfordshire. MW noted that this species is widespread in both Bedfordshire and Cambridgeshire, with the first county record of Barbastelle in Bedfordshire being 1976 and in Cambridgeshire, 1987.

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07 *Plan summary for Eversden and Wimpole Woods SAC: Slide 13*

MW presented information on the Plan for the SAC and explained that the Plan identifies a number of priority issues for the site in terms of surveys and further research to identify areas and habitats.

JB requested clarification as to the source of the Plan shown on the slide. MW replied this is the Natural England Plan summary for the SAC. JB stated that this Plan looks like it was extracted from the Site Improvement Plan and explained that the principle reference for the SAC would be the conservation objectives and supplementary advice package MW clarified to attendees that the Plan was being discussed to provide context to the site and its identified priorities, issues and actions, and that its inclusion was mainly to put the Scheme into context.

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08 MW explained the habitat types (Slide 14) within the Scheme's Order Limits, noting that intensive arable agriculture represents 89% of the land and woodland 1%. The large areas of woodland have been avoided during design-development and explained that the woodlands affected by the Scheme are representative of small parts of woodlands that are clipped or comprise coppices.

MW added that woodland is a key component of the Scheme's Environmental Masterplan. The Scheme would deliver some 76 hectares (ha) of new woodland (representing approximately 21% of the Order Limits) and around 145ha of neutral grassland.

MW confirmed that Highways England are currently updating their Biodiversity Net Gain (BNG) calculations in line with the Defra Metric 2.0, and added that Highways England intends to produce and submit a report to the Examination covering the revised calculations.

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09 JG asked attendees whether they had any questions on what MW had covered, before moving onto further details of the bat investigations undertaken. No questions were raised.

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**Bat investigations: surveys, data, analyses and assessment outcomes including summary of mitigation**

Ref	Meeting Minutes	Responsible	Due by
10	<i>Background to the Scheme and Bat Surveys: Slides 15 &amp; 16</i>		
	<p>MP explained how the Scheme had developed from three original route options and how ecological considerations featured in their evaluation (for example avoidance of sensitive habitats).</p> <p>MP noted that one of the reasons why the Orange Route was selected was due to it being the furthest north and at a greater distance away from designated habitats. MP added that the desk study and bat surveys commenced in 2018, and during the consultation process the route of the Scheme was developed and refined, and the Order Limits were finalised, and mitigation measures developed.</p> <p>MP confirmed that Highways England held a workshop with various parties to discuss Barbastelle bat information within the area of the Scheme, and added that further bat roost surveys have been undertaken in 2021 to update existing data.</p>		
11	<i>Bat Survey Scope and Rationale: Slide 17</i>		
	<p>MP explained that the scope of bat surveys and their associated study areas were informed by the development of a Zone of Influence (Zol), which was based on published bat survey and mitigation guidance, methods successfully used on other Highways England road projects, and the extents of defined "Core Sustenance Zones" (CSZs).</p>		
12	<i>Bat surveys to Inform the EclA for the Scheme:</i>		
	<p><i>Slide 18</i></p> <p>MP presented a table of information that set out bat surveys undertaken by Highways England since 2018. These comprised the following wide-ranging techniques:</p> <ul style="list-style-type: none"> <li>• Desk studies (2018).</li> <li>• Preliminary bat roost appraisals (2018 to 2021).</li> <li>• Bat roost presence/absence and characterisation surveys (2018 to 2021).</li> <li>• Bat activity surveys (2018 to 2019).</li> <li>• Bat trapping surveys (2018 to 2019).</li> <li>• Bat crossing point surveys (2019).</li> </ul>		
13	<i>Zol/Survey Areas and Desk Study Information: Slide 19</i>		
	<p>MP illustrated and explained the defined Zol, survey areas and desk study extents through a figure illustrating bat roost locations within Bedfordshire and Cambridgeshire (based on data records), and how these relate to the Scheme and the SAC. MP explained that the Core Sustenance Zone (CSZ) around the SAC (defined in the Draft Biodiversity Supplementary Planning Document (SPD) - published by Greater Cambridge Shared Planning (on behalf of Cambridge City Council and South Cambridgeshire District Council) in June 2021) only slightly overlaps with the Zol defined for the Scheme.</p>		
14	<i>Bat Roost Surveys Summary: Slide 20</i>		
	<p>MP provided a summary of the bat roost surveys carried out by Highways England.</p> <p>The survey results confirmed non-breeding bat roosts in two trees, two adjacent woodlands and three buildings. Two of these buildings were located in the same area comprising a metal barn and a small brick barn, and the other building was a sheet metal farm building. The confirmed roosts are all day roosts used by small numbers of relatively common and widespread species of bat and are considered to be of local importance.</p> <p>MP noted that two Barbastelle roosts were found outside of the study area in 2019 during bat trapping/tracking surveys.</p>		
15	<i>Transect and Static Surveys 2018, (Transect 8 - 2019): Slide 21</i>		

Ref	Meeting Minutes	Responsible	Due by
	<p>MP presented a figure illustrating the locations of static and transect surveys undertaken by Highways England. MP confirmed that the static surveys covered the Scheme and that eight transects were surveyed monthly.</p> <p>MP explained that Transect 6 had low value habitat as this was all along the existing A428 and across arable fields, noting that this transect had seasonal surveys including spring, summer and autumn. Transect 8 was undertaken with a delayed start in 2019 due to access issues, and was surveyed between July and October.</p> <p>MP added that in addition to the transects there were also 16 static detector locations gathering data between April/June to October.</p>		
16	<i>Transect Survey – Barbastelle records: Slide 22</i>		
	<p>MP explained that very low Barbastelle activity (all single passes) was recorded in the transects undertaken in 2018 and 2019, and presented an example figure illustrating bat activity at one of these transects surveyed (Transect 7).</p>		
17	<i>Static Surveys: Slide 23</i>		
	<p>MP presented a data breakdown of the static detector surveys undertaken, and highlighted that the pie chart shown on the slide illustrates the results gathered from the 14 static detectors (2018) and an additional two static detectors (2019).</p> <p>MP explained that the static detectors were located at features most likely to be used by bats – for example hedges, coppices and wetlands – and clarified that central locations of arable fields that were, for example, regularly cropped, disturbed and sprayed were not included. MP reiterated that the surveys were focused on habitat features that bats would typically use.</p> <p>MP explained that there were eight Barbastelle passes recorded in 2018 and a further eight Barbastelle passes in 2019, and that data concluded that there is low Barbastelle activity. MP added that October is a typical time where these species are more wide-ranging as they move to hibernation sties.</p>		
18	<i>Crossing Point Surveys: Slide 24</i>		
	<p>MP explained that Highways England used the higher percentiles of recorded bat species from the transect surveys and static detectors to determine the locations of the crossing point surveys. MP made the point that surveys have to be proportionate, and that we are not obliged to survey in detail every place a bat might go, but rather survey efforts should be sufficient to identify the most important locations and routes for bats.</p>		
19	<i>Crossing Point Survey Examples: Slide 25</i>		
	<p>MP provided examples of the crossing point surveys, and explained that Bat Crossing Point 2 (located south of Boys Wood) was assessed as the highest activity across the Scheme for bats based on transect data and static data. This was selected as a major crossing point feature.</p> <p>MP explained that Bat Crossing Point 3 located to the north-east of Bat Crossing Point 2 was another location where the static detectors indicated bats moving across a hedgerow at that location, and where a new farm bridge was proposed. Bat Crossing Point 2 was identified at an early stage to be a suitable location to incorporate a bat underpass structure within the Scheme to maintain connectivity between Sir John’s Wood to the east and habitats to the west.</p>		
20	<i>Crossing Point Survey Results: Slide 26</i>		
	<p>MP presented a tabulated summary of the findings of the bat crossing point surveys and the percentage composition of bats recorded at the seven locations. The species composition was mainly Common Pipistrelle, Soprano Pipistrelle or unidentified Pipistrelle bats (which were either Common or Soprano). There were also some records of Myotis bats and Noctule bats, and low numbers of other species.</p> <p>MP explained that there was one pass of a Barbastelle bat at one location (Bat Crossing Point 7).</p>		

Ref	Meeting Minutes	Responsible	Due by
21	<p><i>Bat trapping and tracking rationale: Slide 27</i></p> <p>MP explained that the aim of these surveys was to locate any Barbastelle roosts and to help identify Myotis species. Very limited suitable habitat was identified for trapping, with nothing located to the eastern extents of the Scheme (no woodlands). Some limited suitability was identified at North Lodge Plantation (located centrally), and some small areas of woodland located to the west.</p> <p>MP explained that although there was some limited habitat at North Lodge Plantation, survey efforts moved to Boys Wood due to the lack of Barbastelle activity and habitat suitability at this plantation. Boys Wood is located 150m west from the Scheme and this woodland has more mature trees and some standing dead trees.</p> <p>MP added that Highways England consulted with internal specialists and license holders and Cambridgeshire Bat Group on these trapping locations, and that high numbers of Barbastelle were not recorded through any of the survey methods adopted.</p> <p>MP confirmed that Highways England used the advice note from Natural England on the most appropriate time of year to capture and tag bats, which is later in the season. MP added that the surveys were not undertaken in April and May, as outlined in the advice note, because in spring, bats may be hungry, stressed and therefore vulnerable, having recently emerged from hibernation. MP clarified that surveys therefore focused on the July to October period, and were undertaken in suitable weather conditions.</p>		
22	<p><i>Bat trapping and tracking locations: Slide 28</i></p> <p>MP presented the locations of the two capture and tag sites at North Lodge Plantation and Boys Wood, and explained that a combination of harp traps, mist netting and acoustic lures were used. North Lodge Plantation was trapped in 2018, and Boys Wood was trapped in 2018 and 2019.</p> <p>MP clarified that the two red stars illustrated on the map shown on the slide represent the Barbastelle roosts that we found beyond the Scheme's Order Limits, following the tracking of bats.</p>		
23	<p><i>Trapping and tracking Barbastelle Summary: Slide 29</i></p> <p>MP noted that a third bat that was trapped and tagged was not refound, despite extensive checking including all surrounding suitable habitats including Gamlingay Wood (located 6km to the south east). MP added that due to the distance of the SAC being 20km away, it was determined that the bat was unlikely to travel to the SAC based on the time it was captured.</p>		
24	<p><i>Barbastelle in Cambridge and Bedfordshire Workshop: Slide 30</i></p> <p>MP explained that at the end of 2020, Highways England organised a bat workshop with Bedfordshire Bat Group, Cambridgeshire Bat Group, East West Rail, Natural England and Thomson Ecology (for Countryside Properties – a 3,500 homes development at Bourn Airfield). The aim of the workshop was to share data from other projects to learn more about Barbastelle activity in the area. MP noted that the workshop allowed for sharing of data and resources, meaning that Highways England has current and up to date survey data in the area.</p>		
25	<p><i>Scheme and SAC Location with Barbastelle Roosting and Ranges: Slide 31</i></p> <p>MP noted that the outputs from the bat workshop enabled the location of Barbastelle roosting and their ranges in relation to the SAC to be mapped. MP presented a figure showing this consolidated data, which illustrated the locations of where surveys had found bat roosts, desk study data on Barbastelle roosts and the SAC, and the CSZs for Barbastelle.</p> <p>MP added that the figure illustrated the results from tracking undertaken from Cambridgeshire Bat Group in the 2000s, which are indicated by the foraging ranges marked in orange. MP went on to explain that the red lines are results of the extent of Barbastelle ranges identified from surveys undertaken by others from 2020. MP noted that there are also outlier populations from Hayley Wood and Waresley Wood showing bat movements to and from these woods for foraging bats.</p>		

Ref	Meeting Minutes	Responsible	Due by
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MP emphasised the point that the collated mapped data demonstrated that the Barbastelle population at the SAC does not interact with the Scheme.

26 *Mitigation – Mammal Underpass: Slide 32*

MP noted that the area of the Scheme is of regional importance, based upon the Barbastelle (on a precautionary basis).

MP presented a figure showing the location of mammal underpasses incorporated into the Scheme, and explained that the embedded mitigation measures include a viaduct over the River Great Ouse to allow passage for bats along the river, a farm access underpass track next to the railway line, and a mammal tunnel for the passage of all bat species.

MP explained that there will be various other underpasses from farm access underpasses to access under the new Cambridge Road Junction at Wintringham Brook, and further to the east there would be a mammal underpass and a bridleway underpass near Eltisle.

27 *Mitigation: Slide 33*

MP presented a cross-section of the proposed bat tunnel, which has been designed for all species of bats including Barbastelle. This structure would be substantial at 68 metres in length, providing a new dark corridor under the new dual carriageway along an existing bat flyway (this was a bat crossing point which had the highest number of bat passes recorded).

MP explained that the tunnel would be 5 metres wide by 4.5 metres high, and would function to maintain linkages and connectivity between adjacent habitats. MP added that there are other underpasses and potentially a new dark corridor along part of the existing undeveloped parts of the A428. MP confirmed that Highways England have proposed foraging and roosting opportunities and installation of bat boxes as part of the Scheme.

28 *Mitigation: Slide 34*

MP presented an extract of the planting plan, focused on the landscaping proposals along the eastern extents of the new dual carriageway.

MP noted that the area within the purple dotted line shown on the extract is within the SAC's 10km wider conservation area, as outlined in the Draft Biodiversity Supplementary Planning Document (SPD) - published by Greater Cambridge Shared Planning (on behalf of Cambridge City Council and South Cambridgeshire District Council) in June 2021. MP explained that under the draft SPD, the Scheme should aim to retain mature trees, woods and copses and provide new habitat linkages through new tree planting and the integration of existing hedgerow networks with new ones. MP added that within this area of the Scheme, Highways England has proposed new woodland, grassland areas and a wetland area. MP explained that the habitats link into the adjacent existing habitats located to the north and to the south.

**Discussion**

29 *Question 1: Are there any aspects that we have covered regarding the survey data and assessment findings that remain unclear? Slides 35 & 36*

SG responded that Natural England find the most concerning area to be the potential fragmentation issues and the fact that of the 40 potential bat crossing points, only seven were surveyed which is a low number considering the potential to be lost. SG added that it has been mentioned to Natural England that these bat crossing point surveys were selected on the basis that this is where the Scheme can implement mitigation, and not necessarily taking into account what may be being used by bats across the Scheme.

MP clarified that the crossing points were chosen on activity levels and habitat suitability, based on the transect and static surveys, and that the location of the large bat tunnel coincidentally has the highest activity of bat passes. MP explained there are other potential areas with a lot less activity and that, with

the seven crossing point surveys which represented areas with the highest bat activity using static and transect data, there was very little evidence of Barbastelle crossing at those points. MP added that if we undertook, for example, another 10 crossing point surveys in lower areas of activity the data would not be telling us anything different in terms of Barbastelle activity as the seven crossing points with the highest levels of activity recorded a very low level of Barbastelle.

SG replied that it is not just Barbastelle that needs surveying, and added another area of concern for Natural England being Barbastelle moving to hibernation sites. SG explained that Natural England is not sure whether the bats are staying within the SAC for hibernation or whether they hibernate at other sites, and then whether the Scheme could cause fragmentation and prevent movement between these two areas.

SG noted that undertaking additional surveys including statics in the dispersal period and throughout the season would be beneficial. MP noted Natural England's request for further winter surveys and accepted that these may be achievable.

MW explained that the Scheme would not impact upon habitat that Barbastelle would be using within the winter season, and asked SG where does Natural England believe the Barbastelle are dispersing to beyond the Scheme? SG replied that she does not know and added Natural England want to rule out that habitat would not be impacted, for example for Barbastelle during the maternity period when their foraging areas are smaller. SG added that Natural England wants to be certain that Barbastelle home ranges would not be affected by the Scheme, and will not prevent them from going to their historic hibernation sites. SG noted that Natural England does not have an all year around picture of Barbastelle activity and what the likely impacts might be.

MW clarified that looking at the landscape north of the Scheme, it is very much a repetition of what Highways England has surveyed over the past few years and observed that the landscape is very unlikely to contain resources that would be valuable for Barbastelle. MW added that to the east, west and south of the SAC the landscape is very different and contain resources for Barbastelle that would benefit from wintering surveys; however, to the north where our Scheme is located it is very arable by nature and contains limited resources for Barbastelle, which therefore raises the question on the need to undertake wintering surveys.

SG replied and said that she will have an internal call with Natural England colleagues to determine the need for this surveying work, but reiterated that fragmentation is the main concern, along with the proposed East West Rail project, in terms of potential implications on the landscape.

JG asked is there anything further that anyone would like to cover in relation to Question 1? VR raised she needs to leave the meeting at that point, and asked SG when this internal call would take place as Deadline 1 is very close. SG explained that she will discuss with ZG after the call and look into this further. VR asked SG for her response on this matter prior to Deadline 1 so it can be incorporated into any required responses.

SG and ZG 25-08-2021

[VR left the meeting at 12:01pm]

30 *Question 2: Are there aspects within Natural England's Relevant Representation that can now be agreed and closed out/resolved and reported through Deadline 1 submissions? Slides 35 & 36*

CD explained that the only outstanding issues are around the bats and this issue is ongoing until SG and ZG have their call. CD explained that a further issue is the additional soil surveys, which Highways England is intending to carry out.

JG acknowledged Natural England's position.

31 *Question 3: Has Natural England's view regarding the conclusion of no likely significant effects on Eversden and Wimpole SAC altered, or does Natural England remain of the view that further surveys are needed to evidence this conclusion? Slides 35 & 36*

SG stated that Natural England's view is that further bat surveys are required.

Ref	Meeting Minutes	Responsible	Due by
	<p>SG added that Figure 1 shown on the presentation slides has been referenced within the Clarification Note previously submitted to Natural England, but noted that it was not attached. SG confirmed that this is the figure illustrating the various datasets and movements of Barbastelle in the area [Figure on presentation slide 31], noting this was critical missing information. JG explained that Highways England will be submitting a slightly altered version of the Clarification note as a Technical Note to answer points raised in the Written Questions, and will incorporate this into that updated note. JG added that Highways England will forward the missing figure onto Natural England after the workshop.</p> <p>SG explained that Natural England has not been provided with any additional results from the ongoing surveys that are being undertaken this year. JG explained that Highways England will be collating these results into a report, and asked MW and MP to provide an update on their status.</p> <p>MP informed attendees that Highways England are undertaking roost update surveys and have undertaken three transects, one towards the east of the Scheme and two towards the west, to provide an update on whether anything has changed. MP explained that Highways England does not believe any alterations have occurred to the landscape.</p> <p>MW raised the 5km range question that Natural England raised in its Relevant Representation, and asked MP to provide further clarification on our approach to tracking. MP clarified that we tracked bats and one of the bats was not refound. MP explained that based on the time recorded after sunset and the distance from the SAC, it was highly unlikely that we would follow a single bat to a site 20km away. MP explained that the bats we were tracking would return back to their roosts, for example at Gamlingay Wood which falls just outside the 5km zone. MP acknowledged that the wording in the report regarding the 5km distance is not clear as it states up to 5km where surveys would be tracking the bats back to their roost locations.</p> <p>SG agreed and explained that, upon reading the report, she did question why tracking appeared to stop at 5km. MP confirmed this is an error in the wording and that bats were surveyed back to their roosts. MW asked SG are Natural England happy on the explanation today for the justification on reducing the 40 crossing points down to seven crossing points? SG replied that Natural England would be more comfortable with a written justification for scoping out the other crossing point locations that were not surveyed.</p> <p>MP explained that the 40 crossing points are not necessarily identified bat crossing points; rather they are potential features that could be used for bats. MP explained that Highways England will make this clearer and will provide rationale as to why the seven locations were selected based on the data collected. JG asked MP &amp; MW whether this rationale could also be put into the Technical Note being produced for Deadline 1? MP and MW agreed. SG added it would be useful to identify those crossing points that are features, and those that are potential crossing points, so Natural England know how many of the crossing points identified have been surveyed.</p>	JG	23-08-2021
		MP/MW	25/08/2021

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### Further Investigation

#### 32 Examination Timeline: Rule 8 Letter: Slides 37 & 38

JG explained that the Rule 8 Letter received on 20 August 2021 included an update on deadlines over the Examination, and that, from a review of those deadlines, Highways England has looked at what bat surveys could feasibly be undertaken within the remaining Examination timeframe.

JG explored the time constraints of the Examination, noting that a survey report would need to be prepared and submitted by Highways England to the ExA no later than Deadline 7 (14 January 2022) in order to provide all parties with an opportunity to review its content. JG confirmed to all attendees that it could take between six to eight weeks before surveying can commence as there is a need to agree with Natural England the scope of the further bat surveys, secure licensing agreements through applications, and arrange land access (possibly with a need to use access powers). JG noted that surveying could possibly commence from the end of September / early October 2021, and this would offer a three-month winter surveying window within 2021 prior to reporting at Deadline 7.

JG explained that the next slides set out Highways England's proposed survey scope, based on what may be achievable, and welcomed Natural England's thoughts and views.

33 *Draft AECOM Additional Survey Scope to confirm assessment (where required): Slide 39*

JB explained that for his first question there is general knowledge that Barbastelle bats travel a considerable distance (i.e. 20 kilometres). JB asked has the project considered this within its considerations? JB added that the Habitat Regulations tests for significant effects is a low bar and with the various comments made on the lower quality of the landscape this leans towards greater foraging ranges.

JB explained that for his second question, would the project team on a precautionary basis accept a conclusion of likely significant effects and prepare an Appropriate Assessment. JB explained that he is aware Highways England have proposed a number of mitigation measures that meet the needs of the SAC on a precautionary basis. JB explained that it may be more productive to accept likely significant effects and move the debate onto the Appropriate Assessment tests.

MP explained that we have not surveyed 20 kilometres and the 20 kilometres distance zone raised is based on the maximum distances of tracked Barbastelle and explained that bats move across the landscape to wintering sites and in some cases bats can move continents. MP explained that the distance is relevant in terms of foraging bats. MP explained that the evidence shown is that there are very low numbers moving through the site close to the Scheme. MP explained that whilst it may not have been explicitly commended on we can explain this further within the Technical Note.

MW explained that we did draw a 20-kilometer zone around the SAC and this is a point which could have been articulated better within the figures. MW explained that in terms of available habitat and quality of habitat, our data reflects this as the Barbastelle have greater resources in other directions of the SAC and it raises the questions as to why the Barbastelle bats would expend energy and resources moving north in a direction and beyond when they have other resources of high quality closer to the SAC. MW explained that the evidence shows this is where the bats are going for foraging.

JB explained it would be helpful for Highways England to apply the evidence to the specific test of the regulations. The likely significant effects test asks if there a possibility of an effect and this is a low bar that there could be an effect. JB explained that to answer the questions raised by the Inspectorate and to add clarify he has not yet seen these distances applied in the context of the Habitat Regulations tests.

MP explained that our assessment is reliant upon the CSZ of 6km. MP explained that different bats have different CSZs. MP explained that we are not saying bats cannot travel 20km or further but the core zone that maintains the bat SAC population is at this 6km zone and this is further defined in the CSZ figure. MP explained that if you go further outside the CSZ to the 6km you are not reaching the Scheme.

JB replied this is helpful discussion, but advised that these points would be more comfortably debated and effectively dealt within an Appropriate Assessment.

JG asked JB what would moving towards an Appropriate Assessment achieve at this stage and explained that Highways England received Natural England's Relevant Representation in June 2021, which was the first time Highways England received comments that Natural England were not content with the assessment findings. JG explained that Highways England is happy to engage with Natural England and alter the survey scope. JG asked JB from Natural England's perspective what would moving into an Appropriate Assessment achieve because Highways England assumes Natural England would still want the further bat surveys to be undertaken?

JB replied yes to the surveys and explained that an Appropriate Assessment would accept an element of precaution involved. JB explained that the Scheme would have a greater chance of arguing that there would be no adverse effects on the sites integrity, but with the likely significant effects test, the assessment concludes there is not even the possibility of an effect on this European site and it is this point Natural England are reluctant to agree based on known foraging behaviour of this species..

JB explained that there are Environmental Impact Assessment (EIA) questions, Habitat Regulations questions, licensing questions etc. and there are a number of different angles of assessment that



different colleagues are advising on. JB explained that the Scheme includes various mitigation measures and on the assumption colleagues in Natural England are happy with the quality of those measures proposed, this could be a better route forward and would mean the Scheme accepts some uncertainty.

JB raised the issue of sample size and explained that not many Barbastelle bats have been caught and tracked over the years.

MW explained that the point raised by JB on how many Barbastelle bats have been caught is concerning. MW explained that the other way of looking at that is that there are not the bats there to catch. MW explained the surveying efforts involved over the years and from a professional point of view reiterated there is just not the bats their to catch. MW asked JB what further work would Natural England have liked Highways England to do and how many bats should we have caught?

JB explained that in terms of survey effort he will leave this for his colleagues to advise on.

JB explained that he is raising the general point that at this particular SAC, Natural England are working on a baseline with an incomplete data set so do not know everything about the SAC. JB explained to base the conclusion on the 6km CSZ does not go far enough and as there is uncertainty, the safer option is to accept likely significant effects and go into the mitigation measures.

MW asked JB where his uncertainty is in terms of the work that Highways England have done and in terms of bats moving significantly beyond the CSZ. MW explained that the survey efforts have been significant and the data across the board indicates that Barbastelle bats are not moving in the Schemes direction. MW explained that the frustration Highways England have is not knowing what else could have been done and explained that Natural England's response so far indicates that if our surveys found 10 Barbastelle bats for example, Natural England would have seen that as less certain. MW explained that our assessment went beyond what would normally be expected both in terms of distance and the investigations undertaken. MW explained that our assessment did not find any information that links the Schemes geography to the SAC.

JG added to MWs point, and explained that there is a specific Written Question that has been asked of all parties to provide this evidence of the functional linkage between the Scheme and the SAC. JB noted this, and explained that colleagues in Natural England will respond to these questions.

SG explained that the further bat surveys will aid in addressing Natural England's concerns.

JG asked MP to talk through the additional survey work which Highways England believes is feasible given the allocated timeline. MP noted that we have a narrow window to undertake these surveys and would aim to provide winter Barbastelle bat activity surveys, and explained that these surveys would be focus on the woodlands where there is suitable habitat. MP explained that Highways England would deploy static detectors in those woodlands from October to December 2021.

MP explained that crossing point surveys are undertaken when bats are more active, typically between June and September. MP explained that we would try and undertake three crossing point surveys early in the survey season in September or October 2021 and a further three crossing point surveys in winter 2021.

MP explained that the advanced survey techniques within additional woodlands close to the Scheme would be located towards the central area of the Scheme as woodlands are limited in the east.

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34 *Winter Statics in Woodland within / close to the Scheme: Slide 40*

MP highlighted on the map the proposed winter static detector locations.

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35 *Additional Crossing Point Surveys – central to eastern end of Scheme: Slide 41*

MP highlighted on the map the proposed additional crossing point surveys.

MP explained that these additional locations are mainly hedges and highlighted two crossing point locations are further east.

36 *Proposed Trapping Locations: Slide 42*

MP explained that Highways England are not proposing to trap again at Boys Wood and would conduct further attempts at North Lodge Plantation during the end of 2021. MP explained that the other sites include Pillar Plantation, Fox Hole Wood and The Gorse.

MP explained that this is our draft plan and explained that Highways England are open to Natural England's comment.

SG asked would static detectors be deployed at the crossing point locations?

MP replied no and added that this is something that Highways England can do. MP explained that the crossing point surveys would be done later at night as Barbastelle bats are a late emerging species and agreed with SG that static detectors would be beneficial at these locations.

SG asked MP to send this information across the Natural England for further review and explained that trapping may not be something that would be required. SG explained that Natural England will discuss this further internally and get back to Highways England with suggestions. SG raised that Natural England may not necessarily want to ask Highways England to undertake invasive work if they don't feel it would provide a much greater benefit over other non-invasive techniques.

MP agreed to sending the presentation slides over to Natural England.

MP raised a potential difficulty in obtaining a project license in time to carry out the works and explained Barbastelle bats cannot be tagged below certain temperatures.

SG explained that the class license can allow a couple of trapping surveys without the project license.

MP replied we can trap but cannot tag under this license.

JG explained that Highways England will work on the position statement with the aim to get this across to Natural England and the local authorities. JG explained that we will alter our survey scope following the discussion today and will draft Natural England's response, so it is easier for review and edit on Natural England side. JG explained that it is really important to agree in the next day or so what surveys and scope are appropriate and can be delivered within the allocated timeframe.

JG 23-08-2021

JG explained that we are more than happy to receive edits and comments. JG asked SG for comments by tomorrow [24.08.2021].

SG 24-08-2021

SG agreed and asked JG to send over the position statement by today [23.08.2021].

JG 23-08-2021

SG raised that Natural England would like to see static detectors at the crossing survey points and the additional survey works at the earliest opportunity rather than trapping. JG asked if licensing surveys are required, is there anyone in Natural England that could assist in expediting our application? SG explained this might depend upon ZGs availability and raised this is a consideration that is noted.

JG explained that in terms of answering the questions that the Inspectorate has raised, if we agree to undertake no further tagging and trapping surveys, would Natural England be satisfied with the data collected at the end of the survey season? JG explained that Highways England do not want to be in the position where additional survey work is agreed and undertaken and should the outcome be that we have captured no Barbastelle bats, Natural England respond that more data is required.

SG explained that Natural England can agree the scope of the surveys but is reliant on the real time data that comes in.

JG explained that Highways England are mindful of the ExA's interest in regard to demonstrating the absence of functional linkages between our Scheme and SAC, and noted that Highways England want to clarify that if we undertake these additional surveys and conclude that any Barbastelle records are not from the SAC, are we going to be in a position to go back to the ExA to confirm that all parties are satisfied that the Barbastelle recorded are not the SAC Barbastelle bats?

Ref	Meeting Minutes	Responsible	Due by
	JG asked SG to give thought to this point and explained that Highways England will share the presentation and will prepare the joint position statement. JG asked whether SG and CD could add to this statement once this has been circulated. CD agreed.		25-08-2021
37	<b>AOB and Questions – Slide 43</b>		
	JG explained that a set of meeting minutes will be circulated along with the presentation slides and the omitted Figure 1.	ST/JG	25-08-2021
	CD agreed with JB's comment on potentially moving into an Appropriate Assessment. JG explained that Highways England will discuss this point further internally.		
	JG thanked everybody for their time and closed the workshop.		

## Appendix B: Supporting figures

**Figure 1 – The Scheme, Eversden and Wimpole Woods SAC, Barbastelle Records, home ranges and Core Sustenance Area/Zone**





**NOTES**

**LEGEND**

- Order Limits
- The Scheme
- 2km Order limits buffer
- 5km Order limits buffer
- 10km Order Limits buffer
- Eversden and Wimpole Woods Special Area of Conservation (SAC)
- Core Sustenance Zone, 6km (source: Bat Conservation Trust (2016) Core Sustenance Zones: Determining zone size)
- Eversden and Wimpole SAC Impact Risk Zone: (source: Greater Cambridgeshire Shared Planning: Biodiversity Supplementary Planning Document (SPD) Draft June 2021)
- 5km
- 10km
- Core area for barbastelle (source: South Cambridgeshire Biodiversity SPD, July 2009)
- Barbastelle roost (source: AECOM field survey)
- Barbastelle desk study roost records
- Example foraging ranges of tagged barbastelle Cambridgeshire bat group from the SAC
- Extent of breeding female barbastelle ranges from 2020 (based on 95% kernel analysis)
- Woodland (source: Ordnance Survey Open Data Local)

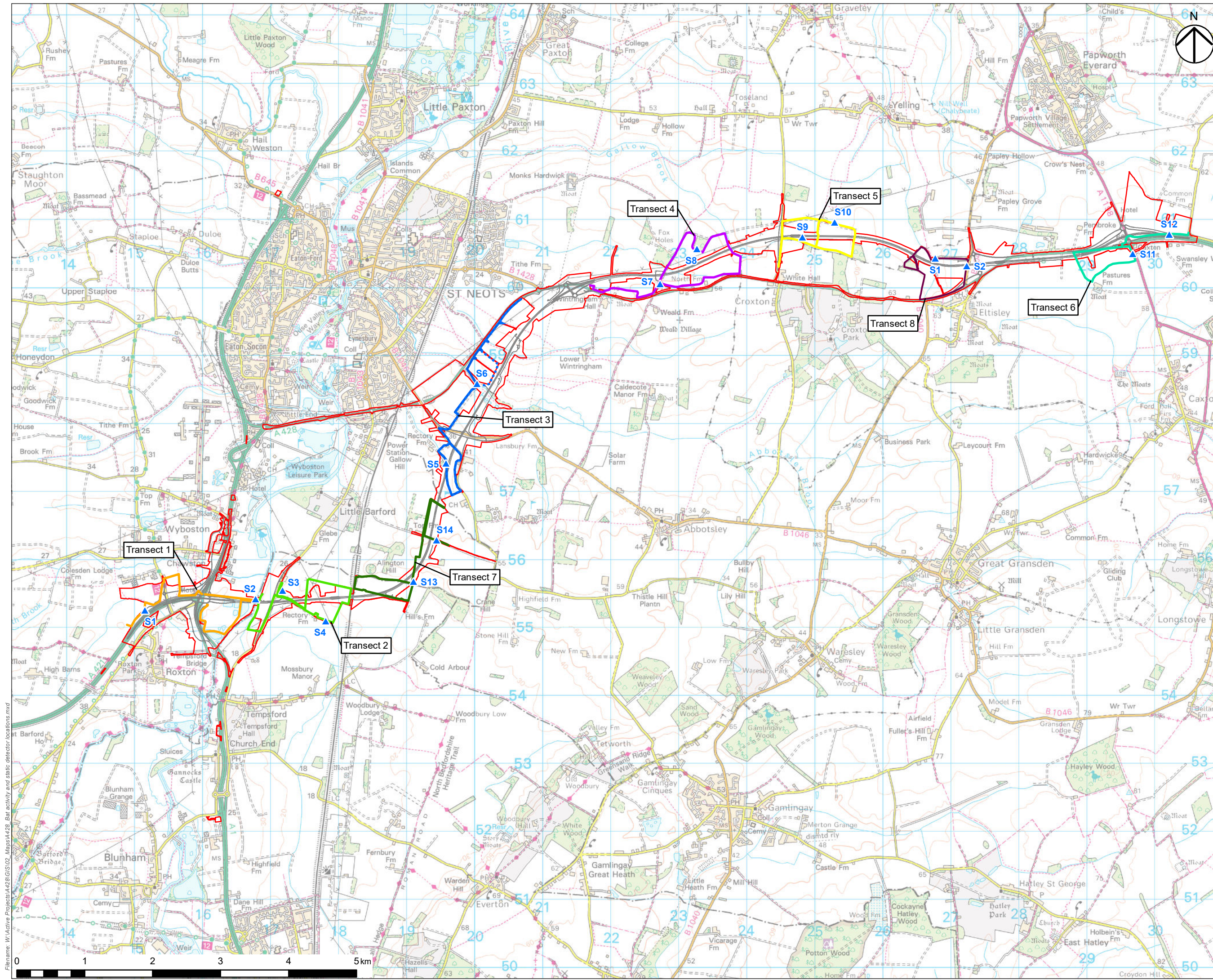
Revision Details	By	Check	Date	Suffix
Purpose of Issue				
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Client				
Highways England Woodlands Manton Lane Manton Industrial Estate Bedford MK41 7LW				
Development Consent Order Number				
Project Title				
A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS				
Drawing Title				
FIGURE 1: THE SCHEME, EVERSDEN AND WIMPOLE WOODS SAC, BARBASTELLE RECORDS, HOME RANGES AND CORE SUSTENANCE AREA/ZONE				
Designed	MW	DF	Checked	MP
Approved				
Date	31/08/2021			
Internal Project No	60541541		Suitability	S1
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				P01
Location		Type	Role	Number

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## Figure 2: Activity and Static Detector Locations





- NOTES**
- LEGEND**
- Order Limits
  - The Scheme
  - Bat survey transect
  - Transect 1
  - Transect 2
  - Transect 3
  - Transect 3, re-routed
  - Transect 4
  - Transect 5
  - Transect 6
  - Transect 7
  - Transect 8
  - ▲ Static monitoring point

Revision Details	By	Check	Date	Suffix

Purpose of Issue  
**FOR INFORMATION**

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Bedford  
MK41 7LW



Development Consent Order Number

Project Title  
**A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS**

Drawing Title  
**FIGURE 2: ACTIVITY AND STATIC DETECTOR LOCATIONS**

Designed MP 60541541	Drawn BF	Checked MW	Approved —	Date 26/02/21
Internal Project No 60541541	Suitability S1	Zone		
Scale @ A3 1:50,000				

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Drawing Number	Highways England Pn	Originator	Volume	Rev <b>P01</b>
Location	Type   Role   Number			

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## Appendix C: Details of further bat surveys to be completed

## Summary of engagement between the Applicant and Natural England on the further bat surveys

Further bat surveys are to be undertaken by the Applicant within the remainder of 2021, subject to obtaining the necessary consents and agreements, the scope of which has been agreed between the Applicant and Natural England by way of the following dialogue and communications:

- a. Development and presentation of a draft survey scope, and discussion regarding the proposed survey types, locations and timings, at a workshop held with Natural England on 23 August 2021.
- b. Email from the Applicant to Natural England of its revised draft survey scope following the workshop on 24 August 2021, for review and comment by Natural England.
- c. Subsequent email exchanges between the Applicant and Natural England on the revised draft survey scope between 24 – 26 August 2021 to clarify points of detail.

The scope of the further bat surveys focus on undertaking additional surveys to collect information in response to the points raised by Natural England in its Relevant Representation **[RR-076]** and related questions raised by the ExA in its First Written Questions **[PD-006]** and in the Issue Specific Hearing **[EV-016]** held 18 August 2021 as to whether there are:

- a. any winter population exchanges of Barbastelle between the Scheme and Eversden and Wimpole Woods Special Area of Conservation (the SAC); and/or
- b. any functional links between the Scheme and the SAC during the autumn/winter period.

The Applicant's communications with Natural England recognised the timescale constraint of the Examination, and assumed that the reporting of these surveys would need to be undertaken no later than Deadline 7 (14 January 2022) to allow all interested parties and the ExA sufficient time to review and comment on the survey outcomes and findings.

During its communications, the Applicant reminded Natural England that there is no woodland within the Scheme's Order Limits that would be used by Barbastelle and that based on available data, there is no evidence to indicate that Barbastelle from the SAC would be using any resources in the area of the Scheme and its environs, which is predominately intensive agriculture.

## **Scope of further bat surveys to be undertaken by the Applicant within the remainder of 2021**

Subject to land access and securing licences, the Applicant's further bat surveys will comprise the following.

### Hibernation suitability inspections

Hibernation suitability inspections will be undertaken to quantify potential roosting resource, with static detector surveys carried out in five woodlands identified within 250m of the Scheme in October to December 2021.

The locations of these inspections/surveys are presented on Figure A. In summary, these comprise:

- a. Site 1 – Boys Wood - Mature broadleaved plantation (oak, sycamore and ash dominant) with a few more mature oak trees around the boundary. One main ride in the woodland, limited understorey.
- b. Site 2 – Fox Holes Wood – Broad-leaved semi-natural woodland (c. 6.8 hectares) dominated by pedunculate oak and ash with common hawthorn, elder, wild privet and bramble within the shrub layer. Game bird rearing and a few clearings.
- c. Site 3 – The Gorse – Broadleaved semi-natural woodland, some mature oak and ash, dense scrub.
- d. Site 4 – North Lodge Plantation. Ash dominated woodland, managed recently through thinning, resulting in a canopy of similar aged semi-mature trees covering approximately 70% of the area. The species within the shrub layer sparse including hawthorn, common elder and blackthorn. The ground flora dominated by a field layer of dog's mercury.
- e. Site 5 – Pillar Plantation. Semi-mature woodland of medium size (3.0 ha). The canopy dominated by ash with occasional pedunculate oak and wych elm, over a scattered shrub layer of hawthorn and some elder. Species poor ground flora. Confirmed soprano pipistrelle roost.

Natural England has confirmed in writing that it is in agreement with the Applicant's proposed scope of these investigations/surveys.

### Crossing point surveys

Three crossing point surveys from October to December 2021 will be undertaken, at dusk, at five locations in suitable weather (dry, >5 C), along with use of static detectors deployed for 5 nights per month at each location to identify later commuting/foraging bats along the features.

These crossing points are located towards the eastern end of the Scheme, all of which comprise hedgerow features that would be crossed by the Scheme that have links to adjacent hedge/woodland habitats.

The locations of the crossing points are presented on Figure B.

Natural England commented on the proposed scope of these surveys to the effect that *"the deployment of static detectors and crossing point surveys should commence*

*ASAP ideally in August/September to capture the tail end of the main active season and dispersal period (until December). It is recommended that Static detectors be deployed at all of 40 features referenced that have been identified as potential crossing points, including the 7 previously surveyed in 2019. Additional manned crossing point surveys may be appropriate, depending upon the results of the static detector results.”.*

The Applicant acknowledged Natural England’s recommendations but noted that “*in the proposed scope, the Applicant’s intention is to undertake crossing point surveys in five locations within the eastern end of the Scheme*”. The Applicant had identified these locations as they have linkages to adjacent hedgerows and/or woodland habitats that may be used by Barbastelle bats, and because they are points within the Scheme’s Order Limits that are in closest proximity to Eversden and Wimpole Woods Special Area of Conservation (SAC).

Significantly, the location and number of these additional static detector surveys were informed by Natural England’s Relevant Representation [RR-076] submitted to the ExA, in which Natural England requested that “*winter automated static acoustic bat detector work should be undertaken along key sections of the route in areas that represent optimal winter foraging habitat*”.

In response to Natural England’s request, five crossing point locations were identified by the Applicant towards the east of the Scheme, all of which are features crossed by the Scheme with links to adjacent habitats. As had been explained at the workshop held on 23 August 2021, the Applicant has confirmed that there is a general absence of optimal foraging habitat for Barbastelle within the Scheme’s Order Limits established by surveys already undertaken and reported within the Environmental Statement. On this basis, the Applicant considered it appropriate to focus survey efforts on these five locations given that these points in the eastern end of the Scheme have the greatest likelihood of recording Barbastelle presence through static detection.

Natural England’s subsequent reply to the Applicant’s proposed survey scope now recommended some 40 static detector surveys be undertaken at ‘features’ along the Scheme that have been identified as potential bat crossing points, including seven locations previously surveyed by the Applicant in 2019. The Applicant expressed concern that there now appeared to be a shift from the original request made in the Relevant Representation, in that the 40 static detector surveys no longer represent ‘key sections of the route’.

The Applicant considered that the recommendation of surveying 40 potential crossing point locations:

- a. ran counter to the original request made in the Relevant Representation to focus the survey on ‘key locations’ along the Scheme with static detectors;
- b. was disproportionate, as best practice does not require surveys to be undertaken at every location a bat might go, but rather these should be sufficient to identify the most important locations and routes for bats; and
- c. was unlikely to further contribute to the current understanding of the movements of the SAC’s Barbastelle population, given that static detector surveys would only record the presence of Barbastelle bats in the area of the Scheme and would not provide insights into whether these bats are ranging from the SAC.

Whilst the Applicant acknowledged that the Scheme would cross some 40 linear features comprising tracks, verges and hedges, the seven locations previously surveyed in 2019 were identified as potential bat crossing points based on the highest activity of bats recorded in surveys carried out in transect and static surveys undertaken since 2018. The 2019 surveys comprised an additional investigation to assess the importance of the landscape and its features for commuting bats; establish potential collision risks; and inform the development of mitigation measures (for example crossing point structures).

The Applicant concluded that the deployment of 40 static detectors would not assist with establishing whether the Barbastelle population at the SAC is foraging/hibernating on land within the Scheme's Order Limits, which is the main barrier to agreeing that the Scheme would have no likely significant effects on the integrity of the SAC. Such surveys were considered unlikely to assist with answering the ExA's question asked at Issue Specific Hearing 1 [EV-016] of "*whether there are any winter population exchanges of Barbastelle and/or functional links with the Scheme and Eversden and Wimpole Woods Special Area of Conservation (the SAC) during the autumn/winter period?*"

In reply, Natural England offered clarification that it was "*not advocating that static detectors were deployed at all 40 features along the scheme. During the workshop call it was explained that only some of the 40 features mentioned were actually potential crossing points (the rest being potential features that could be used by bats). It is only at the potential crossing points that we are asking for the additional static detectors to be deployed*".

Natural England further stated that "*It is acknowledged that the more favourable landscape is to the east, west and south of the SAC however, there is also some seemingly suitable landscape to the north-west of the site, notable around Little Paxton and Graftham area. As we [Natural England] do not currently hold any information on potential barbastelle swarming or hibernation sites, the deployment of static detectors at these crossing points, primarily during August/September – October, may help to identify (or rule out) any important dispersal routes. Whilst the use of static detectors may not provide insights into whether these bats are ranging from the SAC it would be useful in determining whether additional mitigation is required*".

On this basis, the Applicant has determined that it will undertake three crossing point surveys from September to October 2021 at dusk at twelve locations, all of which are hedgerow features crossed by the Scheme with links to adjacent hedge/woodland habitats. These comprise:

- a. seven in the western half of the Scheme which were surveyed in 2019 (presented on Figures 6.1 – 6.5 within Appendix 8.5, Bats [APP-192] of the Environmental Statement); and
- b. the five located towards the east of the Scheme (as presented on Figure B).

Surveys would be undertaken in suitable weather (dry, >5 C), along with use of static detectors deployed for five nights per month at each location to identify any later commuting/foraging bats along the features.

### Advanced survey techniques

Advanced Survey Techniques (between September to October) within the SAC or woodlands close to the Scheme will be undertaken by the Applicant.

These surveys will comprise the capture and tagging of bats under a project licence and tracking back to roost locations. Trapping at woodlands close to the Scheme will aim to trap commuting/foraging bats and find roost locations along the Scheme and any potential movement back to roosts at the SAC.

After an initial assessment of the woodlands for suitable trapping locations, three trapping visits will be undertaken at each woodland to capture and tag *Barbastelle*.

In the event trapping at the SAC cannot be undertaken, the Applicant will modify its approach and search for *Barbastelle* moving through the Scheme or potentially roosting in woodlands adjacent to the Scheme.

Natural England commented on the proposed scope of these surveys to the effect that:

*“Ideally, data would be obtained from non-invasive techniques and the requirement to carry out further trapping and radio tracking would be based on results of the additional crossing point and static detector surveys.*

*Dispersal surveys would ideally be carried out in late August to end of September. Therefore if you [the Applicant] are unable to carry out trapping surveys until October, it may be more beneficial to concentrate efforts and resources on surveying the crossing points (as above).*

*Further activity surveys in the SAC would be useful as this may pick up swarming or hibernation sites. Whilst this would not necessarily follow that bats were not dispersing to other site, the risk would be lower.*

*If you [the Applicant] are able to carry out trapping and radio tagging in the SAC in September the application form you require can be found on Gov.UK using the attached link [Bats: licence to disturb or take bats for science or conservation \(A34, Class-A34 and LR34\) - GOV.UK \(www.gov.uk\)](#).*

*Please send the application and project plan to [wildlife.scicons@naturalengland.org.uk](mailto:wildlife.scicons@naturalengland.org.uk)... we will do our best to issue a licence in time.”.*

The Applicant acknowledged Natural England’s recommendations, stating its intention to undertake trapping and tagging of *Barbastelle* bats within the SAC as this will:

- a. satisfy the request made by Natural England in its Relevant Representation with regard to undertaking surveys using Advanced Licence Bat Survey Techniques (ALBST) within the SAC;
- b. collate further evidence of *Barbastelle* movements to support the conclusion that the land within the Scheme’s Order Limits provides no functional habitat or roosting linkages for the SAC’s *Barbastelle* population; and



- c. confirm to the ExA by way of a response to Written Questions Q1.3.4.2 & Q1.3.4.3 at Deadline 1 that the Applicant intends to undertake ALBST surveys and submit the findings to the Examination.

Accordingly, the Applicant will submit a licence application and project plan to Natural England as soon as possible to secure approval to carry out ALBST surveys within the SAC.

In the event that the Applicant is unable to undertake the ALBST surveys within the SAC, surveys will be undertaken in woodlands close to the Scheme (as there are no woodlands within the Scheme's Order Limits), the locations of which would be informed by the outcomes of the static detection surveys and discussed/agreed with Natural England.

The Applicant confirmed that it is committed to sharing the bat survey data it collects from the above surveys with Natural England in a timely manner, such that the findings can be discussed and evaluated by both parties through ongoing engagement. The Applicant envisaged that any related matters or actions arising would be recorded by way of updates to the Statement of Common Ground.

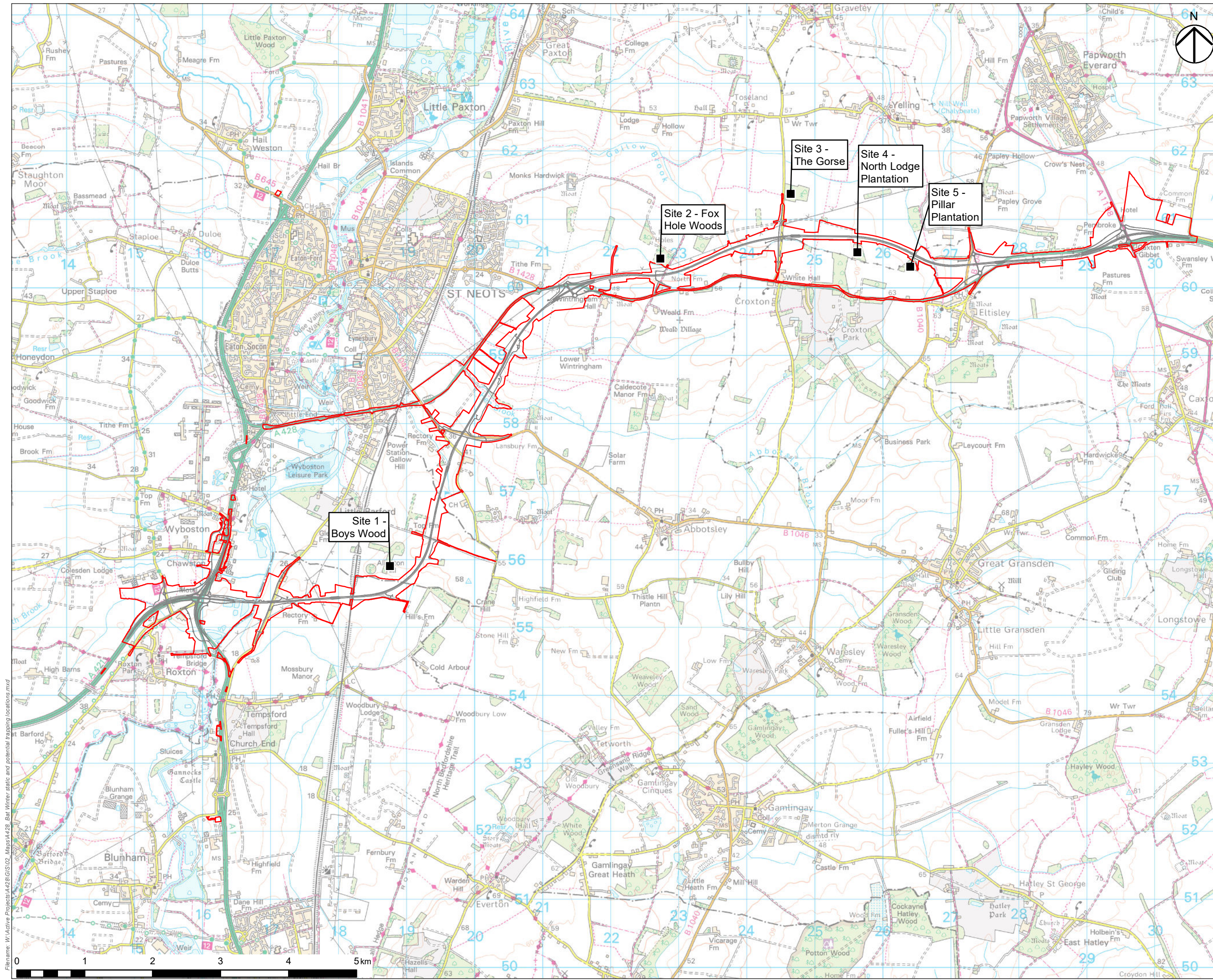
The Applicant drew Natural England's attention to the assumptions that:

- a. permission will need to be granted from Natural England to trap and tag bats at the SAC through a project licence;
- b. bat tags are available;
- c. there are suitable weather conditions for trapping and tagging, which are requirements of the licence;
- d. Natural England's standard licence application review periods for ALBST surveys would need be expedited; and
- e. land access/permissions will be obtained for woodlands close to the Scheme and, if trapping is undertaken, at the SAC.

In its reply, Natural England did not provide any further comment on the Applicant's proposed scope of the surveys using advanced survey techniques. Accordingly, the Applicant will undertake these surveys as set out above.

## **Figure A. Winter static and potential trapping locations**





**NOTES**

**LEGEND**

- Order Limits
- The Scheme
- Site locations

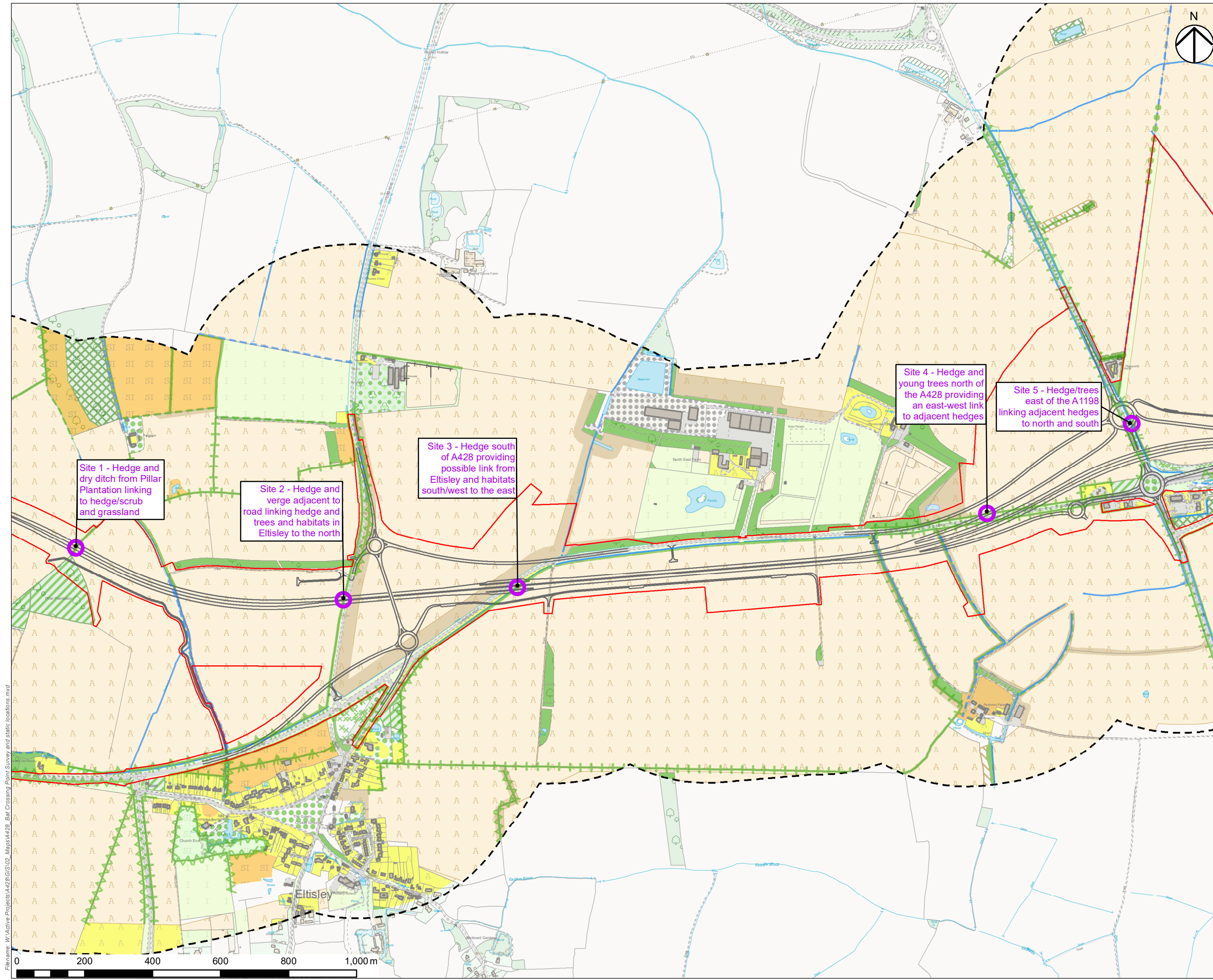
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Highways England Woodlands Marston Lane Marston Industrial Estate Bedford MK41 7LW					
Development Consent Order Number					
Project Title					
<b>A428 BLACK CAT          TO CAXTON GIBBET          IMPROVEMENTS</b>					
Drawing Title					
<b>FIGURE A:          WINTER STATIC AND POTENTIAL          TRAPPING LOCATIONS</b>					
Designed MP	Drawn BF	Checked MW	Approved —	Date 26/02/21	
Internal Project No 60541541			Suitability S1		
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Location					
Type   Role   Number					

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## **Figure B. Crossing Point Surveys and Static Locations**



- NOTES**
- LEGEND**
- Order Limits
  - The Scheme
  - 500m buffer to Order Limits
  - Survey location
- Phase 1 habitat**
- Broad leaved semi-natural woodland
  - Broad leaved plantation woodland
  - Broad-leaved parkland
  - Mixed plantation woodland
  - Mixed parkland
  - Continuous scrub
  - Scattered scrub
  - Poor semi improved grassland
  - Semi-improved neutral grassland
  - Unimproved neutral grassland
  - Improved grassland
  - Tall ruderal
  - Standing water
  - Amenity grassland
  - Arable
  - Arable field margin
  - Bare ground
  - Building
  - Hard surface
  - Scattered trees
  - ▲ Species rich intact hedge
  - ▼ Species rich hedge and trees
  - Species poor intact hedge
  - ◆ Species poor defunct hedge
  - + Species poor hedge and trees
  - Running water
  - - - Dry ditch
  - + Fence
  - Individual Tree

Site 1 - Hedge and dry ditch from Pillar Plantation linking to hedge/scrub and grassland

Site 2 - Hedge and verge adjacent to road linking hedge and trees and habitats in Eltisley to the north

Site 3 - Hedge south of A428 providing possible link from Eltisley and habitats south/west to the east

Site 4 - Hedge and young trees north of the A428 providing an east-west link to adjacent hedges

Site 5 - Hedge/trees east of the A1198 linking adjacent hedges to north and south

Revision Details	By	Check	Date	Suffix

Purpose of Issue  
**FOR INFORMATION**

Client  
Highways England  
Woodlands  
Manton Lane  
Manton Industrial Estate  
Bedford  
MK41 7LW



Development Consent Order Number

Project Title  
**A428 BLACK CAT TO CAXTON GIBBET IMPROVEMENTS**

Drawing Title  
**FIGURE B  
CROSSING POINT SURVEY AND  
STATIC LOCATIONS**

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Location	Type	Role	Number

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