



White Cross Offshore Wind Farm ES Addendum

**Appendix I: Approach to Bat Mitigation at
Saunton Road**



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Glossary of Acronyms

Acronym	Definition
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
ES	Environmental Statement
km	Kilometre
m	Metre
MMO	Marine Management Organisation
NE	Natural England
NDC	North Devon Council
OS	Ordnance Survey
RSPB	Royal Society for the Protection of Birds
SSSI	Site of Special Scientific Interest
TFL	Temporary flightline
UK	United Kingdom
WTG	Wind Turbine Generator

Glossary of Terminology

Defined Term	Description
Applicant	White Cross Offshore Windfarm Limited
Export Cable Corridor	The area in which the export cables will be laid, either from the Offshore Substation or the inter-array cable junction box (if no offshore substation), to the NG Onshore Substation comprising both the Offshore Export Cable Corridor and Onshore Export Cable Corridor.
Land Manager	The person or company responsible for managing the land through which the Project passes.
Mitigation Fields	The fields identified outside of the cable corridor that could potentially support lapwing mitigation during construction works.
Onshore Development Area	The onshore area above MLWS including the underground onshore export cables connecting to the White Cross Onshore Substation and onward to the NG grid connection point at East Yelland. The onshore development area will form part of a separate Planning application to the Local Planning Authority (LPA) under the Town and Country Planning Act 1990.
Onshore Export Cables	The cables which bring electricity from MLWS at the Landfall to the White Cross Onshore Substation and onward to the NG grid connection point at East Yelland.
Onshore Export Cable Corridor	The proposed onshore area in which the export cables will be laid, from MLWS at the Landfall to the White Cross Onshore Substation and onward to the NG grid connection point at East Yelland.
the Onshore Project	The Onshore Project for the onshore TCPA application includes all elements onshore of MLWS. This includes the infrastructure associated with the offshore export cable (from MLWS), landfall, onshore export cable and associated infrastructure and new onshore substation (if required).
the Project	the Project is a proposed floating offshore windfarm called White Cross located in the Celtic Sea with a capacity of up to 100MW. It encompasses the project as a whole, i.e. all onshore and offshore infrastructure and activities associated with the Project.
White Cross Offshore Windfarm	100MW capacity offshore windfarm including associated onshore and offshore infrastructure

1. Introduction

1. This document has been prepared for the White Cross Offshore Windfarm (the Project) and provides information on mitigation for foraging and commuting bats along a section of hedgerow adjacent to Saunton Road, between Braunton and Saunton, that will be affected by construction works. This document provides North Devon Council (NDC) and statutory consultees with further information regarding the approach to mitigation at this location during the construction phase of the Project.

1.1 Background and Rationale

1.1.1 Site description

2. The hedgerow section on which this report is focussed is located on the south side of the B3231 Saunton Road, at OS grid reference SS 46663 37541.
3. A field of species-poor grassland is to the south; the B3231 road is immediately to the north. A parallel hedgerow with a similar character is also located on the north side of the road.
4. The section of hedgerow supports several native species (English elm *Ulmus procera* is the dominant species, with goat willow *Salix caprea*, hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa* and gorse *Ulex* sp.). It also includes some gaps which support bramble *Rubus fruticosus*, and a gated access with a width of approximately 4m which splits the hedgerow into two sections towards the southern end. The hedgerow is regularly managed by cutting and, as such, lacks a dense bushy structure and there are no trees present. Photographs of the hedgerow are provided in **Image 1.1** and **Image 1.2**.



Image 1.1 Saunton Road hedgerow (viewed looking west); the parallel hedgerow on the north side of the road is visible on the right.



Image 1.2 Saunton Road hedgerow (viewed looking east) with existing access point.

1.1.2 Background

5. The local area is of importance for bats and the need for mitigation has been raised during consultation with NDC and Natural England (NE) (meeting date 11th December 2023).
6. There are several documented local roosts:
 - Caen Valley Bats Site of Special Scientific Interest (SSSI), a nationally important summer maternity roost and winter hibernacula for the greater horseshoe bat *Rhinolophus ferrumequinum*, is located 1.7km to the north-east of the hedgerow. In addition, there is known a bat roost at East Saunton Farm c. 200m to the north supporting substantial maternity and hibernation roosts of greater horseshoe bat (JG Ecological Surveys, 2023). The hedgerow is therefore located within foraging range of greater horseshoe bats using these roosts.
 - Non-breeding summer roosts of both lesser horseshoe *Rhinolophus hipposideros* and brown long-eared *Plecotus auritus* bats are also present at East Saunton Farm (JG Ecological Surveys, 2023).
 - Other roosts recorded within the nearby area include a roost supporting low numbers or individuals of greater horseshoe bat, lesser horseshoe bat, and

Myotis sp. bat at Braunton Barn approximately 700m to the west (adjacent to the wider Onshore Development Area); and roosts with low numbers or individuals of greater horseshoe bat, lesser horseshoe bat, common pipistrelle, soprano pipistrelle and *Myotis* sp. bat at South Barrow Farmstead approximately 3.8km to the south (40m to the west of the Onshore Development Area) (this information is included within: White Cross Offshore Windfarm (Onshore Project) Environmental Statement (ES) Chapter 16: Onshore Ecology and Ornithology (Royal Haskoning/BSG Ecology, 2023).

7. The section of hedgerow to be affected has been subject to bat survey in June to August 2023 and April to May 2024 (as detailed in **Appendix H: Supplementary Bat Activity Survey Report (Saunton Road)** of the **ES Addendum**). This work recorded several bat species: including common pipistrelle, noctule *Nyctalus noctula*, serotine *Eptesicus serotinus*, greater horseshoe bat, lesser horseshoe bat, barbastelle *Barbastella barbastellus* and brown long-eared. The supplementary bat report concluded that:
- The hedgerow (and surrounding area) is being used by a variety of bat species; the species assemblage recorded is very similar to that recorded from work from other parts of the Onshore Development Area.
 - Since some of the species recorded (such as noctule, Leisler's bat, serotine, and also to a lesser extent, barbastelle and both pipistrelle species recorded) often forage in open habitats above vegetation, it is likely that some of the passes recorded are from bats flying well above the hedgerow, over the adjacent field or in the general vicinity, rather than along the hedgerow. Given the number of common pipistrelle passes recorded, it is also likely that some regular foraging also occurs up and down this hedgerow.
 - The early records for noctule, serotine, common and soprano pipistrelle suggest that there are likely to be roosts nearby, although there are no suitable roosting features within the hedge (no buildings are present and the hedgerow does not include trees).
 - In terms of the rarer species, particularly greater horseshoe bat (and also lesser horseshoe bat and barbastelle) while some use has been recorded, the level of use does not appear to be high. The passes recorded are considered most likely to be from foraging bats (in low numbers/individuals), and the data do not suggest that the hedgerow is part of a regularly used commuting route used by bats travelling to and from a nearby roost.
 - Given that the hedgerow is used by bats, and also taking into account the levels of activity recorded, mitigation is recommended during the construction phase of the Project; this should ensure the provision of an alternative connecting feature that bats can fly along, during the period when the hedgerow is coppiced.

1.1.3 Description of works at Saunton Road hedgerow

8. During the construction phase of the Project, a section of hedgerow will be temporarily affected to create a visibility splay around the temporary access point for construction traffic. Visibility splays are required to ensure that drivers can observe oncoming traffic and egress safely from an access. The extent of the visibility splay has been informed by considerations of the requirements of the Design Manual for Roads and Bridges and through conversations with Devon County Council Highways.
9. The affected stretch of hedgerow includes a 32m section of hedgerow which will be removed to allow construction of an access road junction (this includes 28m of hedgerow vegetation and a 4m section which currently forms the access gate), and an adjacent 78m stretch which will be coppiced rather than removed. Where growth/form allows some sections may be layed to promote reestablishment, although the current form of the hedge may limit this possibility. The section that is coppiced/ layed will remain short (40cm or less) for the duration of the construction phase before being allowed to regrow after the construction work is complete. The section that is removed will be replanted with mixed native species and will be sourced from local suppliers and nurseries, where feasible.

1.1.4 Purpose of this document

10. This report provides further detail on the precautionary mitigation measures (outlined within the **Onshore Project Environmental Statement (ES) Chapter 16: Onshore Ecology and Ornithology**) that are proposed to ensure that an alternative sheltered flight path/habitat feature is provided while the Saunton Road hedgerow is removed/maintained in a short condition during the course of construction works. Further survey information is provided in the **White Cross Supplementary Bat Activity Survey Report (Appendix H of this ES Addendum)**.
11. This report specifically addresses measures related to the Saunton Road hedgerow, factoring in the results of the additional survey data gathered since the production of the ES Chapter. Mitigation measures proposed for impacts of the wider Onshore Project on foraging and commuting bats using other parts of the Onshore Development Area remain unchanged and are presented within **Section 6.5.13 of the Onshore Project Environmental Statement (ES) Chapter 16: Onshore Ecology and Ornithology**).
12. A further assessment of lighting impacts associated with the temporary main construction compound at Saunton Road (and assessment of the Project as a whole) is also provided **Appendix O: External Lighting Assessment** of this **ES Addendum**. This includes proposed lighting arrangements and mitigation measures.

13. Precautionary measures in relation to bat roosts will include a precautionary preconstruction survey of any trees that require removal. It should be noted that no bat roosts have been identified within trees or buildings within the Onshore Development Area. However, a number buildings and trees within the vicinity of the Onshore Development Area have been identified as having potential to support roosting bats. These will be retained and not directly affected by the Onshore Project. A summary of these measures are included in the **Outline Construction Environmental Management Plan (OCEMP) (WHX001-FLO-CON-ENV-PLN-0010)** which is provided as a standalone document as part the Further Environmental Information submission. The mitigation measures will be further developed and agreed in the final CEMP which will produced preconstruction.

1.2 Proposed Mitigation and Management

14. Mitigation will provide an alternative, adjacent connecting habitat feature that bats can fly and forage along during the period when the hedgerow is reduced to a low level (at or below 40cm) through coppicing.
15. It has been designed to provide a sheltered feature that connects directly to existing hedgerows on either side of the visibility splay, it is also designed to provide some foraging habitat in 3m-wide margins of uncut grassland on either side.
16. The mitigation approach is based on recommendations set out in the latest best-practice industry guidance (Reason & Wray, 2023), and was discussed in principal with Natural England¹.
17. The following points have also been considered when considering the significance of impacts of the temporary removal of the hedgerow, and the mitigation design:
 - The existing hedgerow does not have a complex structure with dense vegetation and mature trees.
 - This is considered to limit its current value to foraging bats .
 - The parallel hedgerow (on the north side of Saunton Road) will be unaffected and will continue to provide habitat connectivity along length of the road (east-west).
 - Other hedgerows along the adjacent field edges, of which there are several (including north-south and east-west connections), will also remain connected and will also therefore continue to provide alternative flight routes in this area.

¹ White Cross OWF Onshore Ecology ETG meeting 4, 11 December 2023

- Given the above points, there is unlikely to be a risk of habitat fragmentation.

1.2.1 Coppicing the existing hedgerow

18. To minimise long-term effects of hedgerow removal, for the hedgerow section that does not require complete removal for the access route, rather than being removed the hedgerow will be coppiced or layed (as appropriate). In total this will amount to a 78m section of hedgerow to be coppiced (or layed). The final methodology (coppicing or laying) will be agreed with all stakeholders and detailed in the final Landscape and Ecological Management Plan (LEMP) to be submitted for approval prior to construction. An **Outline LEMP** is provided in **Appendix N** of this **ES Addendum**. This sets the landscape mitigation replacement planting works which will be undertaken where the cable route construction results in physical loss of individual trees (within hedgerows), and hedgerows.
19. The remaining hedgerow at Saunton Road will be protected with fencing, and managed to remain short (at or below 40cm) for the duration of the construction phase, before being allowed to regrow after the work is complete. There will therefore still be a (very) low hedgerow and verge along the majority of this boundary during the course of the work.
20. It is considered likely that some bats will continue to fly and forage along the grassland verge and coppiced hedgerow base during the period when it is cut short. Its value as a feature will not be completely lost during the course of the work.

1.2.2 Temporary flightline (TFL) 'fake hedge'

21. As outlined in **Chapter 16: Onshore Ecology and Ornithology Section 16.5.13** of the **Onshore ES**, prior to removal/ coppicing of the affected hedgerow section, a temporary 'fake hedge' flightline (TFL) will be installed; this will be connected to the retained hedgerows at each end, but it will set back from the road to allow sufficient visibility/access for the road.
22. The design of the TFL is based on the best practice examples set out in the Bat Mitigation Guidelines (Reason & Wray, 2023) (see pages 110-111, which relates to alternative flightlines).

1.2.2.1 Structure/connectivity and shelter

23. The TFL will be constructed from two 2m-high parallel lines of Heras fencing panels covered with camouflage netting and braced to provide support against the wind. Bats will be able to fly within, or on either side of the structure.
24. To provide connectivity along the full length of the route the TFL will also include a removable/openable section which can be opened to allow the access road to

be used through the daytime, but which will be replaced each evening to maintain hedgerow connectivity at night. The structure of this short removable section will be a single Heras fencing panels or similar, fitted with camouflage netting.

1.2.2.2 Foraging habitat

25. A 3m-wide margin of long unmanaged grassland vegetation will be allowed to establish along either side of the TFL where it passes through the retained field. This will be retained for the duration of the work to provide habitat for invertebrates and is therefore expected to provide some suitable foraging habitat alongside the TFL.

1.2.2.3 Design

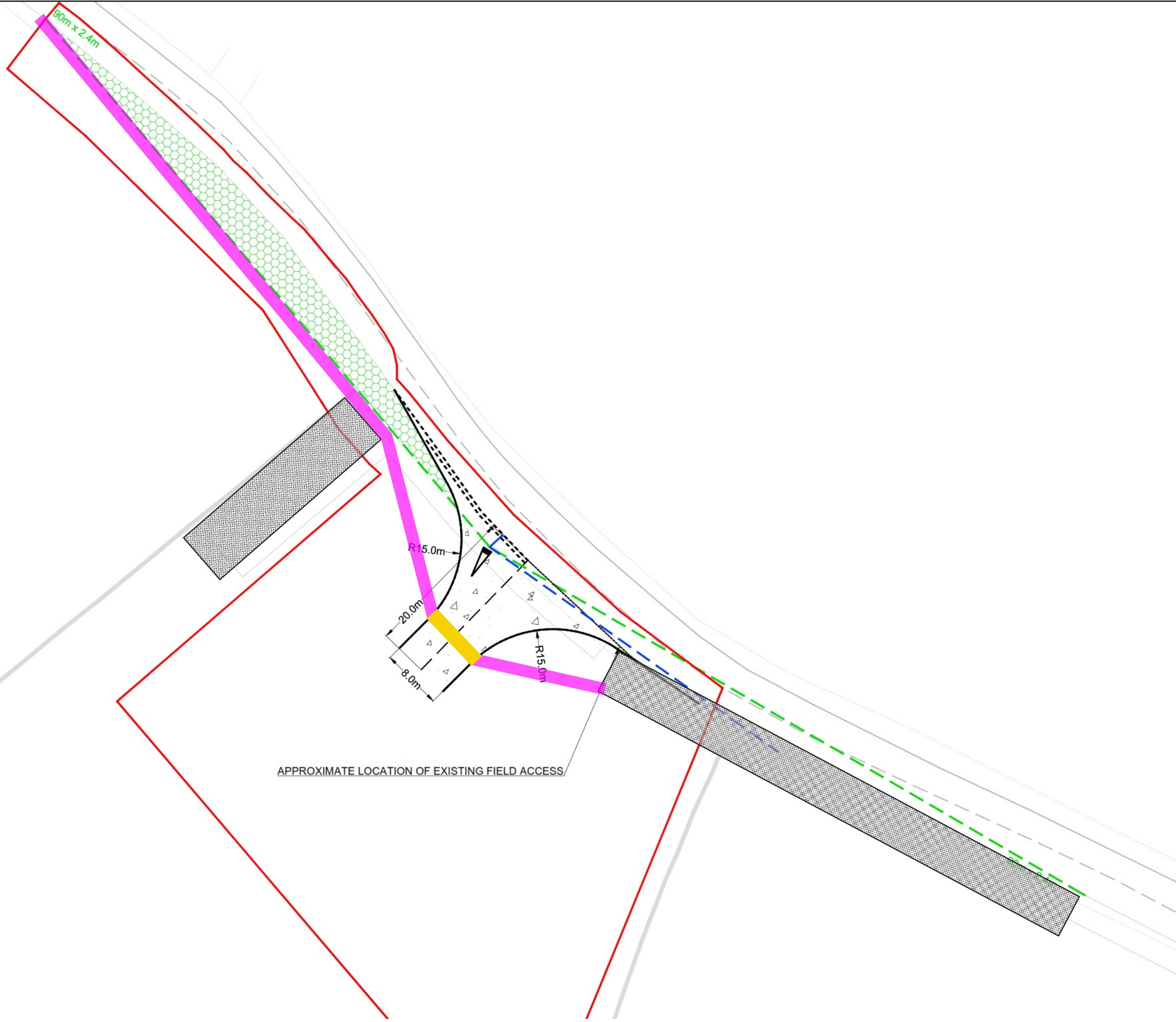
26. The proposed location of the TFL is illustrated in **Figure 1.1** and the design of the TFL is illustrated in **Figure 1.2**.

1.2.2.4 Duration

27. The TFL will be kept in place throughout the construction period during all parts of the construction period that will occur within the active period for bats (April to October).

1.2.2.5 Lighting

28. The TFL will remain unlit (e.g. by construction-related lighting during the period when bats are likely to be active). Further detail on lighting is provided in the **Lighting Impact Assessment (Appendix O of this ES Addendum)** and the updated **OCEMP** which addresses measures to control/mitigate the impacts from lighting during construction (the **OCEMP** is provided as a standalone document as part the Further Environmental Information submission).



- Legend
- Site boundary
 - Retained Hedgerow
 - Temporary Flightline (TFL)
 - Removable Sections of TFL



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PROJECT TITLE
 WHITE CROSS OFFSHORE WINDFARM

DRAWING TITLE
 Figure 1: Location of Saunton Road hedgerow and proposed mitigation for bats

DATE: 29/04/2024 CHECKED: AS SCALE: 1:534
 DRAWN: BH APPROVED: GM VERSION: 1.0

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

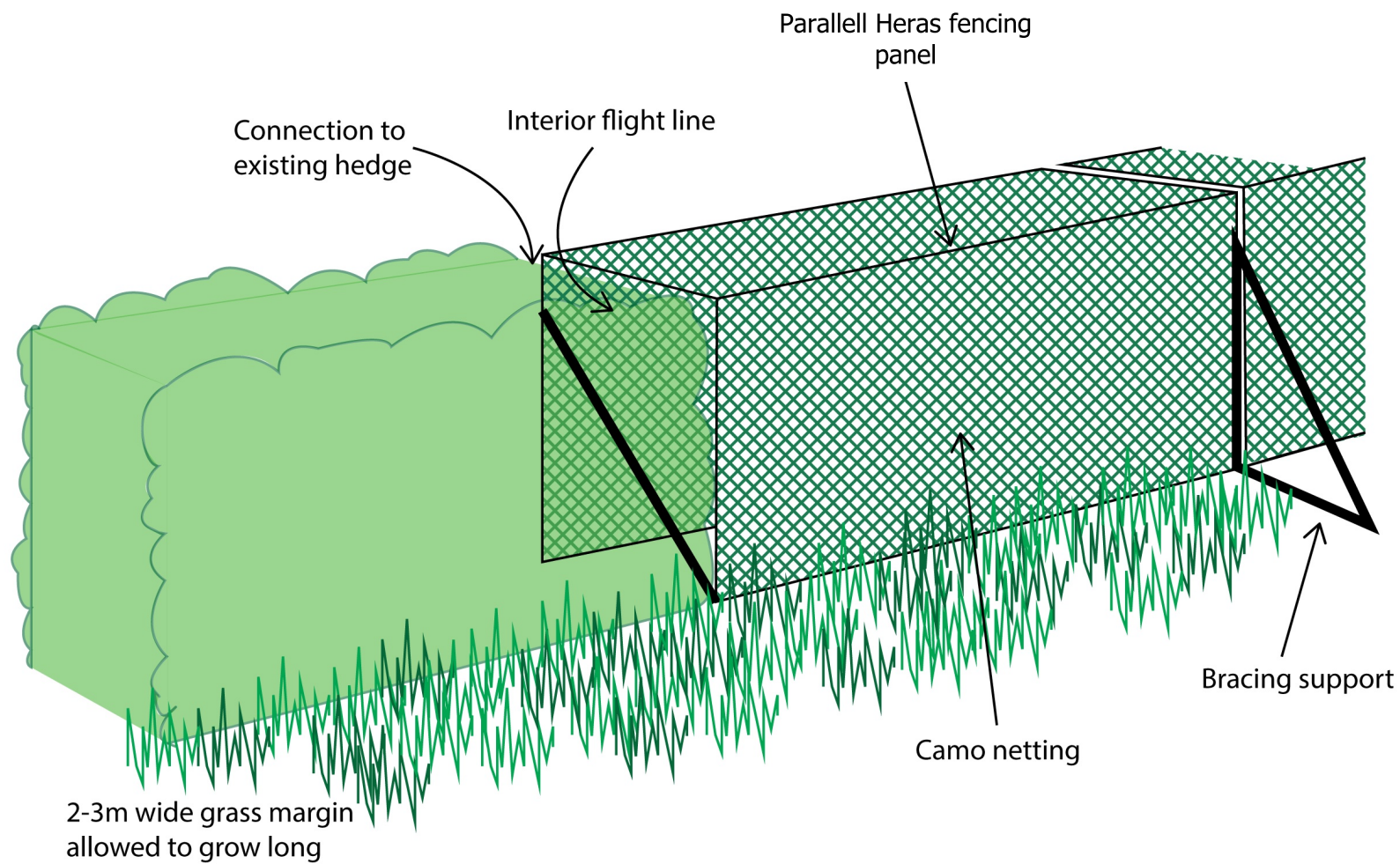
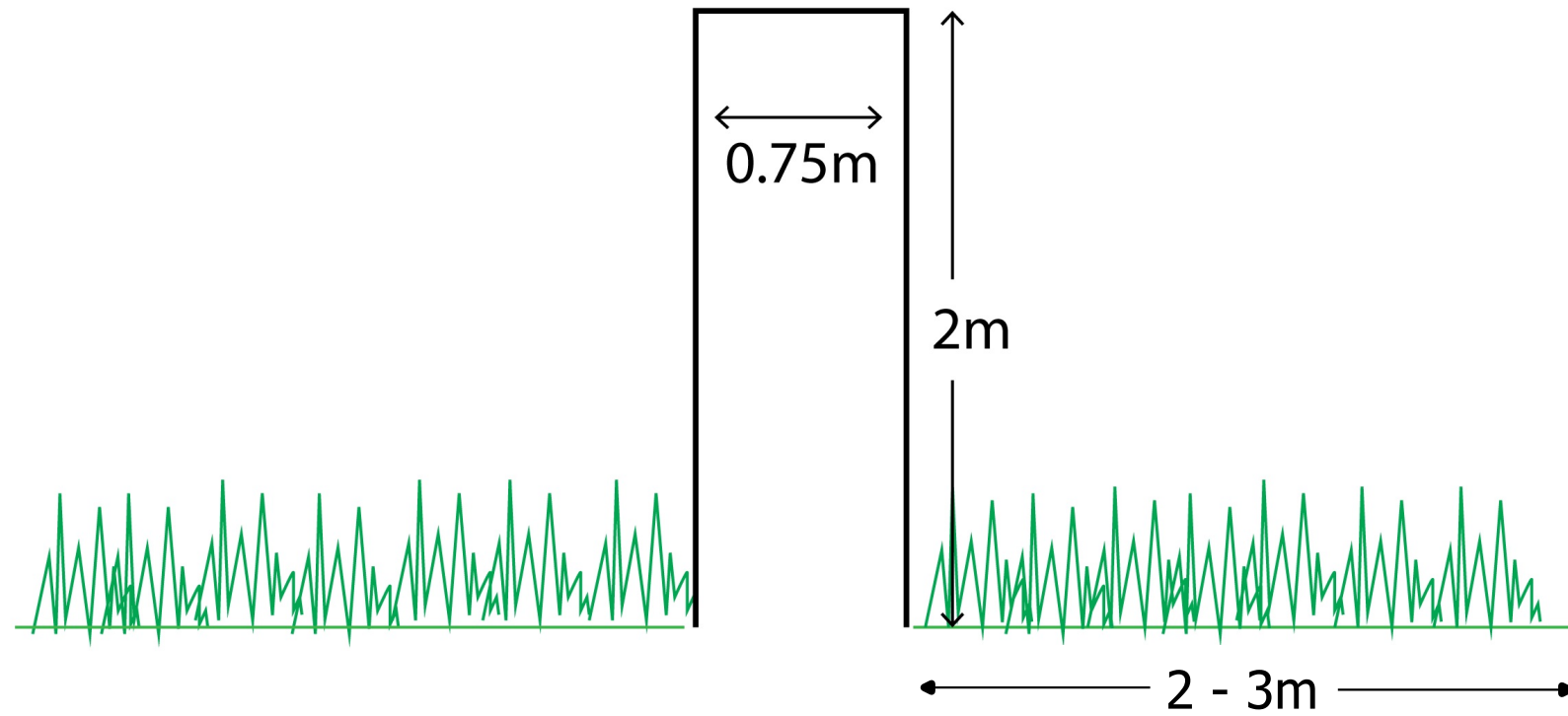
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Sources: BSG Ecology survey data

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1.2.3 Post-construction management/hedgerow reinstatement

29. Following completion of works, the access road will be removed, the affected grassland field will be reinstated and the coppiced section of hedgerow will be allowed to regenerate. Any gaps in the hedgerow will be planted with native hedgerow species, using plants of local provenance where available. Species will be appropriate to the local area and include hawthorn, hazel, blackthorn and goat willow.
30. Since the majority of the hedgerow will be coppiced rather than removed it is considered likely to regenerate fairly rapidly. Once re-established the hedgerow will then be managed through trimming (as prior to the development) and consideration will be given to the possibility of laying the hedgerow for improved structure in the long-term. Proposals for hedgerow management are provided in the updated **OLEMP (Appendix N of this ES Addendum)** and that the final methodology for post-construction management will be agreed with all stakeholders and detailed in the final LEMP to be submitted for approval prior to construction.

2. Survey and Monitoring

31. The construction and installation of the TFL will be carried out under the instruction and supervision of a suitably experienced Ecological Clerk of Works (ECoW) to be appointed by the Applicant.
32. During the construction period, the condition of the TFL will be monitored by the ECoW through weekly walkover inspections and any further management or remedial measures will be implemented as required.
33. In addition to this, twice-monthly dusk walkover inspections of the hedgerow will also be carried out by an ECoW to ensure the hedgerow and TFL remain unlit. The dusk walkovers will be carried out during the months of March, September and October, where the construction working hours (07:00-19:00) coincide with periods of darkness and lighting of work compounds may be required.
34. Static bat detector monitoring surveys will be conducted on three occasions during the bat active season (i.e. during the periods April-May, June-August, and Sept-Oct) of each year that the TFL is in place by a suitably experienced ecologist. This will monitor bat activity use along the TFL.

3. References

35. JG Ecological Surveys (2023) Farmhouse, East Saunton Farm, Saunton, Bat Visual Inspection and Emergence Survey 2022, and Hibernation Check 2023 - Revision 01. JG Ecological Surveys Ltd, June 2023.
36. Reason, P.F. and Wray, S. (2023) UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats.