Gladman Developments Limited

Cross Road, Deal, Kent

ECOLOGICAL APPRAISAL

April 2019

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

Rev	Issue Status	Prepared / Date	Approved/Date
-	Draft	KLB / 09.04.19	DAH / 12.04.19
	Final	KLB / 17.04.19	

CONTENTS

TABLES

PHOTOGRAPHS

FIGURES

APPENDICES

THIS PAGE IS INTENTIONALLY LEFT BLANK

1.0 NON-TECHNICAL SUMMARY

1.1 The site is within 15km of Thanet Coast & Sandwich Bay SPA and Ramsar site, Dover to Kingsdown Cliffs SAC, Thanet Coast & Sandwich Bay SPA, Sandwich Bay SAC, and Lydden & Temple Ewell Downs SAC. As the Application Site falls within the zone of influence of some of these sites, a review (*Appendix C*) has been undertaken to test for effects on the European Sites, and it is concluded that any significant effects on any of the designated sites will be mitigated for by a financial contribution to the North-east Kent European Sites Management Scheme.

1.2 The site consists of arable land of negligible nature conservation value, bounded by margins of scrub, tall ruderal vegetation and species-poor semi-improved grassland. New habitat creation proposals aim to increase the diversity of habitats present and provide structural diversity, with woodland, scrub, trees, informal and formal grassland areas, attenuation features, and a community orchard. New corridors of movement will be created via the planting of tree, hedgerow and scrub lines.

1.3 No evidence of bats roosting within the site was found. The woodland and residential gardens close to the site connect to larger woodland blocks to the south and therefore provide potential for use as commuting and foraging corridors by bats. Bat activity surveys undertaken in 2017 found that the site was used by a small number of common and widespread bat species for commuting and foraging.

1.4 The removal of vegetation from the site should avoid the bird breeding season (March – September, inclusive). If this is not possible then vegetation removal should be preceded by precautionary checks for nesting birds.

1.5 There are no waterbodies either on-site or within 250m of it, therefore it is considered reasonably unlikely that great crested newt *Triturus cristatus* are present within the site boundary and no further survey is recommended.

1.6 Small populations of common lizard *Lacerta vivipara* and slow worm *Anguis fragilis* were recorded around the site margins during presence/absence surveys undertaken in 2017. Some margins will be lost to facilitate the development, and it is recommended that reptiles are passively displaced to retained areas during vegetation clearance to ensure they come to no harm during the construction process.

1.7 Where possible planting schemes should use native species with an emphasis on species bearing nectar, berries, fruit and nuts, to enhance the foraging opportunities for local fauna.

1.8 A children's play area and a circular walk designed to be a focal point for residents will be provided thereby reducing the need for them to travel away from the development for recreational purposes.

1.9 Further opportunities to enhance the site include the provision of bat and bird boxes, and reptile hibernacula.

THIS PAGE IS INTENTIONALLY LEFT BLANK

2.0 INTRODUCTION

2.1 The following Ecological Appraisal has been prepared by FPCR Environment and Design Limited on behalf of Gladman Developments Limited for land off Cross Road, Deal, Kent (central Grid Reference TR 3623 5040), here after referred to as the 'site'.

2.2 It provides the results of an Extended Phase 1 Habitat and Protected Species survey undertaken during 2019. The objective of the survey was to gain an understanding of the baseline ecology of the proposed development and immediate surrounding area, and to determine whether the site supports or has the potential to support protected, rare or otherwise notable species.

2.3 In November 2016 FPCR undertook a habitat survey of the site as part of a proposed application for a wider area that also comprised land to the west. Subsequent to this, bat activity and reptile presence/absence surveys took place over the wider site in 2017.

Site Context

2.4 The site comprised one arable field approximately 3.94ha in area. Cross Road forms the site's western boundary, whilst Station Road forms its southern boundary. Residential gardens and garages are located immediately adjacent to the northern and eastern boundaries, beyond these lie the towns of Walmer and Deal. Arable and pasture land are located to the west and south of site.

Development Proposals

2.5 The proposals are for a residential development of up to 100 units with associated infrastructure. Approximately 1.0ha of GI will be incorporated along existing hedgerows, with a buffer along the western, eastern, and southern boundaries. Habitat loss will be predominantly restricted to arable land. Most of the field margins are to be retained and the proposals will result in the creation of habitat types that are currently absent, which will increase biodiversity, including an attenuation pond, woodland, grassland, shrubs, and an orchard.

THIS PAGE IS INTENTIONALLY LEFT BLANK

3.0 METHODOLOGY

Desktop Survey

3.1 The Multi-Agency Government Information for the Countryside (MAGIC) website (www.magic.gov.uk) has been reviewed for the presence of any statutory designated sites of international (Special Area of Conservation (SAC), Special Protection Area (SPA) or Ramsar Sites)), national (Site of Special Scientific Interest, (SSSI)) or local nature conservation importance (Local Nature Reserves (LNR)) within 15km, 2km and 1km of the site, respectively.

3.2 Kent and Medway Biological Record Centre (KMBRC) was consulted for species information and non-statutory Local Wildlife Sites (LWS) within 1km of the site.

3.3 Further inspection, using colour 1:25,000 OS base maps and aerial photographs from Bing (http://www.bing.com/maps) was also undertaken in order to provide additional context and identify any features of potential importance for nature conservation in the wider landscape.

Field Surveys – Habitats / Flora

Extended Phase 1 Survey

3.4 The survey was undertaken on 29th March 2019, using the standard Extended Phase 1 Habitat Survey Methodology as recommended by Natural England[1] to identify specific habitats and features of ecological interest.

3.5 The survey was undertaken by experienced ecologists from FPCR Environment and Design Ltd. This comprised a systematic walkover of the site mapping and broadly describing the principal habitat types and identifying the dominant plant species/communities present within each habitat type. Each habitat was described based on botanical merit and target notes were used to highlight features or habitats of particular interest. Features such as trees were considered with regard to their ecological value and potential to provide suitable habitats for protected species.

3.6 Consideration was given as to the presence of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) (WCA 1981)[2] the presence of any notable weeds including those covered under the Weed Act 1959[3] (where population is significant enough to be considered injurious), any rare or notable flora including those listed as priorities in the Post 2010 UK Biodiversity Framework[4], species listed under Section 41 of the Natural Environmental and Rural Communities (NERC) Act (2006)[5], Local Biodiversity Action Plan (LBAP) priority species, any IUCN Red listed[6], Red Data Book (RDB)[7] and any national, regional, county or vice – county lists.

[1] JNCC. (1990). *Handbook for Phase 1 habitat survey – a technique for environmental audit*. Peterborough: JNCC

[2] Act of Parliament, (1981). The Wildlife and Countryside Act 1981 (as amended), London: HMSO
[3] Act of Parliament. (1959). The Weed Act 1959. London: HMSO
[4] JNCC and Defra (on behalf of the Four Countries' Biodiversity Group). 2012. *UK Post-2010 Biodiversity Framework*. July 2012
[5] Act of Parliament, (2006). The Natural Environment and Rural Communities Act 2006, London: HMSO
[6] International Union for Conservation of Nature (IUCN), Red List 2012
[7] The Vascular Plant Red Data List for Great Britain (2005), Cheffings, C. and Farrell, L. (Eds)

Hedgerows

3.7 Hedgerows were also considered against criteria for selection as Habitat of Principal Importance under Section 41 of the NERC Act 2006 and the Hedgerow Regulations 1997 Wildlife and Landscape criteria[8], to identify any hedgerows which would be classified as "important" for nature conservation. Under this methodology, hedgerows are considered according to the average number of woody species per 100m of hedgerow. Associated features that enhance hedgerows under the Regulations include mature trees, ditches and hedge banks.

3.8 It should be noted that hedgerows may also qualify as Important under the Archaeological criteria of this Act, which is beyond the scope of this assessment.

Field Surveys - Fauna

3.9 During the surveys of the site, observations, signs of, or suitable habitat for, any species protected under Part 1 of the WCA 1981 (as amended), the Conservation of Habitats and Species Regulations 2017[9] and the Protection of Badgers Act 1992[10] were noted with particular attention being given to the potential presence of bats, reptiles, birds, great crested newt (GCN), hazel dormouse and badger. Consideration was also given to the existence and use of the site by other protected species or locally notable fauna such as Species of Principal Importance as listed on Section 41 of the NERC Act 2006, Principal Species in Kent, Red Data Book (RDB) species and Birds of Conservation Concern (BoCC) red & amber listed bird species[11].

Badger

3.10 Evidence of badgers was sought in all hedgerows, scrub and other suitable habitats within the site and immediately adjacent (where access permitted). The standard methodology was used, as outlined by Harris, Creswell and Jefferies (1991)[12]. This involved a thorough search for evidence of the presence of badgers, including:

- Setts (including main, annexe, subsidiary and outlier);
- Faeces and latrines;
- Prints and trackways;
- Guard-hairs caught on rough wood and fencing; and
- Snuffle holes, scratching posts and general feeding activity

3.11 The identification of any snuffle holes, scratching posts or feeding signs on their own does not necessarily provide conclusive evidence of the presence of badgers and a number of such signs need to be seen in conjunction before they can be said to be conclusive of badger activity.

[8] The Hedgerow Regulations 1997 – Statutory Instrument 1997 No. 1160. [Online]. London: HMSO. Available from: http://www.legislation.gov.uk/uksi/1997/1160/contents/made
[9] The Conservation of Habitats and Species Regulations (as amended 2017). [Online]. Available from: https://www.legislation.gov.uk/uksi/2017/1012/contents/made
[10] The Protection of Badgers Act 1992 (as amended). London: HMSO [Online]. Available from: http://www.legislation.gov.uk/ukpga/1992/51/contents.
[11] Birds of Conservation Concern 4 (2015). British Trust for Ornithology {Online}. Available from: http://www.bto.org/science/monitoring/psob
[12] Harris, Cresswell and Jeffries (1991) (Report) Surveying Badgers. The Mammal Society, Bristol.

Bats

Tree Assessment

3.12 The tree assessments were undertaken from ground level on 29th March 2019 by a suitably experienced ecologist from FPCR. During the survey, Potential Roosting Features (PRF) for bats such as the following were sought (Based on P16, British Standard 8596:2015 Surveying for bats in trees and woodland, October 2015):

- Natural holes (e.g. knot holes) arising from naturally shed branches or branches previously pruned back to a branch collar;
- Man-made holes (e.g. cavities that have developed from flush cuts or cavities created by branches tearing out from parent stems;
- Woodpecker holes;
- Cracks/splits in stems or branches (horizontal and vertical);
- Partially detached, or loose bark plates;
- Cankers (caused by localised bark death) in which cavities have developed;
- Other hollows or cavities, including butt rots;
- Compression of forks with occluded bark, forming potential cavities;
- Crossing stems or branches with suitable roosting space between;
- Ivy stems with diameters in excess of 50mm with suitable roosting space behind (or where roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk);
- Bat or bird boxes; and
- Other suitable places of rest or shelter.

3.13 Certain factors such as orientation of the feature, its height from the ground, the direct surroundings and its location in respect to other features may enhance or reduce the potential value.

3.14 Based on the above, trees were classified into general bat roost potential groups based on the presence of these features. *Table 1* (below) broadly classifies the potential categories as accurately as possible as well as discussing the relevance of the features. This table is based upon Table 4.1 and Chapter 6 in Bat Surveys for Professional Ecologists: Good Practice Guidelines[13].

3.15 Although the British Standard 8596:2015 document groups trees with moderate and high potential, these have been separated below (as per Table 4.1 in The Bat Conservation Trust Guidelines) to allow more specific survey criteria to be applied.

[13] Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust

Table 1: Classification and Survey Requirements for Bats in Trees

Classification of Tree	**Description of** Category and Associated Features **(based on** Potential Roosting Features **listed above)**	**Likely Further Survey work / Actions**
Confirmed Roost	Evidence of roosting bats in the form of live / dead bats, droppings, urine staining, mammalian fur oil staining, etc.	A Natural England derogation licence application will be required if the tree or roost site is affected by the development or proposed arboricultural works. This will require a combination of aerial assessment by roped access bat workers **and** / **or** nocturnal survey during appropriate period (May to August) should be used to inform on the licence. Replacement roost sites commensurate with status of roost to be provided. Works to be undertaken under supervision in accordance with the approved good practice method statement provided within the licence. **However,** where confirmed roost site(s) are not affected by works, work under a precautionary good practice method statement may be possible.
High Potential	A tree with one or more Potential Roosting Features that are obviously suitable for larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat but unlikely to support a roost of high conservation status (i.e. larger roost, irrespective of wider conservation status). Examples include (but are not limited to); woodpecker holes, larger cavities, hollow trunks, hazard beams, etc.	A combination of aerial assessment by roped access bat workers **and** / **or** nocturnal survey during appropriate period (May to August). Following additional assessments, trees may be upgraded or downgraded based on findings. After completion of survey work, a precautionary working method statement is likely to be required. If roost sites are confirmed a licence from Natural England will be required.

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

* The Conservation of Habitats & Species Regulations 2010 (as amended) affords protection to "breeding sites" and "resting places" of bats. The EU Commission's Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC, February 2007 states that these are places "where there is a reasonably high probability that the species concerned will return".

Nocturnal Activity Surveys

3.16 The wider proposed application site including the current site boundary was considered to provide low value habitat for foraging and commuting bats and therefore dusk transect and static detector surveys were undertaken at the site in 2017. The methodology and results of these surveys are detailed in *Appendix B*.

Herpetofauna

3.17 Habitats evaluations were made for their potential to support amphibians and reptiles following guidance set out within the Herpetofauna Workers Manual[14], these include aquatic habitats, south facing banks and field margins, transitional areas between long and short vegetation, and other areas which provide basking and/or sheltering opportunities.

[14] Gent, T., & Gibson, S. [Eds.]. (2003) *Herpetofauna Workers Manual.* Peterborough: Joint Nature Conservation Committee.

3.18 During 2017, presence/absence surveys were undertaken across the larger proposed application site, including the field within the current red-line boundary. The strategic reptile presence/absence surveys followed the methodologies in the Herpetofauna Workers Manual and the Froglife Advice Sheet 10 – Reptile Surveys[15]. Methods involved a search for basking reptiles on/under naturally occurring and strategically positioned artificial refugia. These were placed in locations that offered the most suitable habitat for common reptiles, i.e. structurally diverse 'edge' habitats with areas of bare ground/short vegetation.

3.1 The refugia were left to 'bed in' for approximately 2 weeks, followed by seven separate surveys. Each survey visit was undertaken in accordance with guidelines as follows wherever possible:

- At temperatures of between 9℃ - 18℃;
- On sunny / cloudy days with little or no wind;
- Before 1100 hours and after 1600 hours;
- Approaching refugia from downwind and avoiding casting a shadow and with care so as to not disturb basking animals when checking; and
- Lifting and replacing tins, to check for the presence of reptiles underneath in hot weather, was undertaken with care, to avoid potential harm to any animals underneath.

3.2 Seven surveys were completed, the dates and weather conditions of which are detailed in *Table 2* below:

Table 2. Dates and Weather Conditions for Reptile Surveys

Survey Occasion	Date	Time	Weather
1	06/04/2017	12.54	Cloud % 0-10,Beaufort - 1/2,sunny, 11°
2	11/04/2017	09.49	Cloud % 0-10,Beaufort - 1/2,clear,bright, 11°
3	10/05/2017	11.43	Cloud % 10-20,Beaufort - 1/2,sunny, 12°
4	25/05/2017	08.46	Cloud % 0-10,Beaufort - 1/2,clear,sunny, 15°
5	31/05/2017	05.45	Cloud % 10-20,Beaufort - 1/2,bright,sunny, 17°
6	05/06/2017	12.30	Cloud % 0-10,Beaufort - 2/3,sunny, 16°
7	13/06/2017	11.54	Cloud % 0-10,Beaufort - 1/2,clear,bright,sunny, 17°

3.3 Reptile populations were assessed in accordance with population level criteria as stated in the Key Reptile Site Register. This system classifies populations of individual reptile species into three population categories assessing the importance of the population (*Table 3*). These categories are based on the total number of adult animals observed during individual survey occasions.

[15] Froglife (1999) *Reptile Survey; an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10*. Froglife, Halesworth.

Table 3. Key Reptile Site Survey Assessment Categories (Froglife 1999)

Species	Low Population (No. of individuals)	Good Population (No. of individuals)	Exceptional Population (No. of individuals)
Adder	<5	5 - 10	>10
Common lizard	<5	5 - 20	>20
Grass snake	<5	5 - 10	>10
Slow-worm	<5	5 - 20	>20

Limitations

3.4 The species data collated for the desk study is derived from records submitted by members of the public and from specialist volunteer group surveys. It does not represent a definitive list of species that occur in the local area, and the absence of records does not necessarily imply absence of such species.

3.5 The extended Phase 1 habitat survey was undertaken at a sub-optimal time of year. However, given the paucity of habitats recorded and the presence of only very common and widespread species and habitats, it is not likely that the seasonality of the survey has prevented appropriate characterisation of habitats or assessment of the site's ecological value.

3.6 During the autumn static detector survey, the minimum overnight temperature dropped to 7°C for one of the recording nights. While these conditions are below optimum for bat surveying, they are representative for the time of year and would not therefore have significantly influenced bat activity.

3.7 Four of the reptile surveys were undertaken outside of the recommended period (6th April, 10th May, 5th June and 13th June 2017). However, the weather conditions during this period were still suitable for the surveys to be conducted, and, therefore, this is not considered to be a constraint, and the results are still valid.

3.8 The bat and reptile surveys were undertaken in 2017, and only one static bat detector (spring) was deployed within the current site boundary. However, given that the habitats within the Application Site have remained unchanged since the surveys took place, and its limited extent, it is considered that the results of the surveys is sufficient to inform the application.

THIS PAGE IS INTENTIONALLY LEFT BLANK

4.0 RESULTS

Desktop Survey

Statutory Designations

Sites of International Importance for Nature Conservation

4.1 There are five statutorily designated sites of international importance located within a 15km FPCR search area of the site (*Figure 1*): The nearest designation is the Thanet Coast and Sandwich Bay Ramsar site located approximately 2.1km north-east of the site, whilst the nearest section of Thanet Coast and Sandwich Bay that is designated as a SPA is located approximately 3.5km north; Dover to Kingsdown Cliffs SAC is located approximately 3km south-east; Sandwich Bay SAC approximately 3.7km to the north-east; and Lydden & Temple Ewell Downs SAC is located approximately 9km to the south-west.

4.2 The designated features of these international important sites can be seen in *Table 4* below.

Table 4. Nature Conservation Designations of the International Designated Sites within 15km of Site

Site	Designated Features
Sandwich Bay	**Thanet Coast and Sandwich Bay Ramsar** General overview of the site as taken from the Ramsar Information Sheet[16] *A coastal site, consisting of a long stretch of rocky shore, adjoining areas of estuary, sand dune, maritime grassland, saltmarsh and grazing marsh. The wetland habitats support 15 British Red Data Book invertebrates, as well as a large number of nationally scarce species. The site attracts internationally important numbers of turnstone* Arenaria interpres*, and nationally important numbers of nationally important wintering populations of four wader species: ringed plover, golden plover, grey plover and sanderling, as well as Lapland bunting. The site is used by large numbers of migratory birds* *Ramsar criterion 2: Supports 15 British Red Data Book wetland invertebrates.* *Ramsar criterion 6: species / populations occurring at levels of international importance* Qualifying species / populations (as identified at designated): Peak counts in winter: • Ruddy turnstone *Arenaria interpres interpres:* 1007 individuals, representing an average of 1% of the population (5 year peak mean 1998/9- 2002/3)

[16] Information Sheet on Ramsar Wetlands (RIS): Thanet Coast and Sandwich Bay http://jncc.defra.gov.uk/pdf/RIS/UK11070.pdf

Site	Designated Features
	Thanet Coast and Sandwich Bay SPA[17] This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex II of Directive 92/43/EEC: During the breeding season the area regularly supports: • Little tern *Sterna albifrons* (Eastern Atlantic - breeding) 0.3% of the GB breeding population 5 year mean, 1992-1996 Over winter the area regularly supports: • Golden plover *Pluvialis apricaria* [North-western Europe - breeding] 0.2% of the GB population 5 year peak mean 1991/92-1995/96 The site also qualifies under Article 4.2 of the directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex II of Directive 92/43/EEC: Over winter the area regularly supports: • Turnstone *Arenaria interpres* (Western Palearctic - wintering) 1.4% of the population 5 year peak mean 1991/92-1995/96).
	Sandwich Bay SAC[18] Annex I habitats that are a primary reason for selection of this site • 2110 Embryonic shifting dunes • 2120 Shifting dunes along the shoreline with Ammophila arenaria • 2130 Fixed coastal dunes with herbaceous vegetation • 2170 Dunes with *Salix repens* ssp. Argentea (Salicion arenariae) Annex I habitats present as a qualifying feature • 2190 Humid dune slacks
Dover to Kingsdown Cliffs SAC[19]	Annex I habitats that are a primary reason for selection of this site • 1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts Annex I habitats present as a qualifying feature • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)
Lydden & Temple Ewell Downs SAC[20]	Annex I habitats that are a primary reason for selection of this site • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)

Sites of National or Local Importance for Nature Conservation

4.3 There are no statutorily designated site of national or local importance located within 2km or 1km of the site respectively.

[17] JNCC SPA Description http://jncc.defra.gov.uk/pdf/SPA/UK9012071.pdf
[18] JNCC SAC Description http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013077
[19] JNCC SAC Description http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030330
[20] JNCC SAC Description http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0012834

Non-Statutory Designations

4.4 KMBRC returned no records of any non-statutory sites of nature conservation interest within 1km of the site.

Protected / Notable Species Records

Badger

4.5 Only one record of badger was received from KMBRC within the 1km search area, from 2006. For confidentiality reasons this data has not been included within *Figure 2*, or commented on any further in this report.

Bats

4.6 KMBRC returned bat records from Kent Bat Group for locations within 5km of the site; of which ten of these fell within the 1km search area, including records of pipistrelle species *Pipistrellus* sp., serotine *Eptesicus serotinus,* and brown long-eared *Plecotus auritus.*

4.7 The serotine record was of a maternity roost recorded in 2010 at a location approximately 400m to the south of the site. A 2010 record of long-eared species droppings at a location approximately 990m south-east of the site was also returned. The other records were of individual bat sightings, of either grounded or flying bats.

Birds

4.8 KMBRC provided a number of records of schedule one protected bird species, bird species of principal importance under the NERC Act (2006), and BoCC Red List species within the search area. However, the majority of records were only specified to within 1km grid squares so the resolution of these records is not detailed enough to enable them to be plotted accurately on the Consultation Results Plan. Nevertheless the species to which they concern, and which are less than 20 years old are listed in *Appendix A*. Of these, the large majority of species recorded are considered unlikely to use the site due to its small size and arable nature. However, there are some records of species such as bullfinch *Pyrrhula pyrrhula,* cuckoo *Cuculus canorus*, dunnock *Prunella modularis,* house sparrow *Passer domesticus* linnet *Carduelis cannabina,* skylark *Alauda arvensis,* yellow wagtail *Motacilla flava,* and yellowhammer *Emberiza citronella* which could potentially use the habitats on-site.

Herpetofauna

4.9 KMBRC returned records from Kent Reptile & Amphibian Group (KRAG), where there were no historical records of GCN.

4.10 KRAG returned four records of slow worm *Anguis fragilis,* one record of grass snake *Natrix natrix*, and four records of common lizard *Zootoca vivipara* within 1km of the site. The closest records of all three species, was found within allotments located approximately 150m south-east of the site, in 2012.

Other Species

4.11 The desktop study results did not include any other notable/protected species records either within the site or in 1km of it.

Field Survey Results – Habitats and Flora

Habitats

4.12 *Figure 3* illustrates the habitats that are represented on the site, which is dominated by recently ploughed uncultivated arable field, bound with 2-5m wide margins of rank grassland and ruderal species. Below are the details of each habitat type present.

Scrub

4.13 There were areas of dense scrub, mostly consistent of bramble *Rubus fruticosus* agg., in the north western corner and in the central region of the eastern boundary, backing onto residential dwellings and garden. Scattered scrub was present along most of the boundaries, except to the south, species consisted of bramble, elder *Sambucus nigra* and willow species *Salix* sp.

Trees

4.14 There was a mature wild cherry *Prunus avium* within site adjacent to a residential garden along the northern boundary. Other mature trees along the northern boundary were within third party ownership, and consisted of holly *Ilex aquifolia,* elder, hawthorn *Crataegus monogyna,* and cherry species *Prunus* sp. A mature sycamore *Acer pseudoplatanus* was present in the north-eastern corner of site. Mature and semi-mature species such as ash *Fraxinus excelsior,* holly, goat willow *Salix caprea,* and walnut *Juglans regia* were present sporadically along the eastern boundary.

Arable

4.15 The majority of the site comprised an uncultivated arable field with margins ranging from 2-5m in width. Habitats included semi-improved grassland and tall ruderal species typical of disturbed ground. The margin along the southern boundary was a vegetated bank approximately 0.5m high.

Photograph 1: View of the arable field looking north from the south-western corner.

Semi-improved Grassland

4.16 The field margins around the arable field, range between 2-5m and supported a moderate diversity of grass and herb species, generally typical of such habitat. Grass species present included cock's-foot and common couch *Elymus repens*. Herb species frequently observed included alexanders *Smyrnium olusatrum*, broad-leaved dock, red dead-nettle *Lamium purpureum*, and ground elder *Aegopodium podagrari*. There were also some garden escapes present such as Montbretia *Crocosmia* sp., which is listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), and pot marigold *Calendula officinalis* growing along the eastern boundary.

4.17 There was a small area of species poor semi-improved grassland in the north-western corner, with common species such as cock's-foot *Dactylis glomerata,* perennial ryegrass *Lolium perenne*, and annual meadowgrass *Poa annua* present. Forbs in this area included species such as ribwort plantain *Plantago lanceolata*, dandelion *Taraxacum officinale* agg., and bristly oxtongue *Picris echioides*.

Tall Ruderal

4.18 There were small patches of tall ruderal species along the eastern and northern boundaries. Species included common nettle *Urtica dioica*, teasel *Dipsacus fullonum*, broad-leaved dock *Rumex obtusifolius* and willowherb species *Epilobium* sp.

Photograph 2: Typical vegetation along the eastern boundary.

Photograph 3: Scrub and grassland in the north-western corner.

Hedgerows

4.19 There was a defunct hedgerow along the western edge of the arable field bordering Cross Road, it consisted of ivy covered hawthorn bushes widely separated by large gaps.

4.20 The remaining hedgerows present were within residential garden boundaries; one in the south-eastern corner consisting of hawthorn and privet *Ligustrum ovalifolium,* and one in the north-western corner consisting of Leyland cypress *Cupressocyparis leylandii.*

4.21 Due to their defunct or residential status none of the hedgerows were assessed under the Hedgerow Regulations 1997.

Photograph 4: Defunct Hedgerow along Cross Road

Fauna

Badgers

4.22 No evidence of badgers occupying areas within the study boundary was observed at the time of survey.

Bats

4.23 None of the trees within or surrounding the site had any features that would provide potential to support roosting bats.

4.24 Seasonal bat activity surveys were undertaken in May, July and September 2017 (*Appendix B*, FPCR Bat Survey Report, October 2017). These consisted of walked transect and static detector surveys which covered the present site boundary as well as fields to the east which were part of a proposed application for a larger site. Bat activity overall was considered to be low and the assemblage using the site unexceptional, given the site's rural edge setting and the mixture of habitats present. The only species recorded within the current site boundary during the transect surveys were foraging and commuting soprano and common pipistrelles.

4.25 During the May (spring) static detector survey, when the unit was located within the current Application Site boundary, the unit recorded a total of 329 bat registrations over the 46 hour survey period with common pipistrelle the most frequently recorded species. Soprano pipistrelle, brown long-eared, serotine*, Nyctalus* species, *Pipistrelle* species and *Myotis* species were also recorded during the completed static surveys.

Birds

4.26 During site visits a colony of house sparrow *Passer domesticus* was observed foraging in the scrub and within offsite residential hedgerow in the north-western corner of the site; these are

Bird of Conservation Concern (BoCC), red list species and species of principal importance under NERC Act (2006).

Herpetofauna

4.27 There were no aquatic habitats within the site, and none within 250m, this would suggest that the site is outside of a commuting distance to be used during the terrestrial life stage of amphibians.

4.28 The margins of the arable fields and the grassland areas were considered suitable for reptile species, as they have the complex and varied vegetation structure preferred by reptiles for basking and shelter. The surveys undertaken in 2017 recorded a peak count of 1 common lizard along the western boundary and a peak count of 1 slow worm was recorded along the northern boundary, adjacent to residential gardens. The full survey results can be seen in *Table 5* below.

Table 5- Reptile Survey Results 2017

Survey Occasion	Date	Common Lizard	Grass Snake	Slow-Worm	Other Species
1	06/04/2017	1	0	1	0
2	11/04/2017	0	0	1 (+1 Juv)	0
3	10/05/2017	0	0	1	0
4	25/05/2017	1	0	0	0
5	31/05/2017	0	0	0	0
6	05/06/2017	0	0	0	0
7	13/06/2017	0	0	0	0

5.0 EVALUATION & RECOMMENDATIONS

National Planning Policy Framework (NPPF)

5.1 Within the NPPF[21] there is a '*presumption in favour of sustainable development'* which underpins the production of development plans and decision taking.

5.2 The NPPF states that "*Planning policies and decisions should contribute to and enhance the natural and local environment"* by, amongst other things, *"minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*

5.3 Within the NPPF there are clear objectives for conserving and enhancing habitats and biodiversity: "*To protect and enhance biodiversity and geodiversity, plans should:*

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

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

> *a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
>
> *b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
>
> *c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
>
> *d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around*

[21] Ministry of Housing, Communities and Local Government. (2018). *National Planning Policy Framework*. [Online]. London: Ministry of housing Communities and Local Government. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740441/National_Planning_Policy_Framework_web_accessible_version.pdf [Accessed 29/01/2019]

developments should be encouraged, especially where this can secure measurable net gains for biodiversity."

Statutory Sites

5.4 SACs are strictly protected sites, designated under the Habitats Directive, which contain habitats and/or species (excluding birds) considered to be most in need of conservation at a European level

5.5 Guidance on International sites is provided by the National Planning Policy Framework and Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.[22] In brief the circular states that the competent authority (the local planning authority (LPA)) must establish if any proposals not directly connected to or necessary for the management of the international site, either alone or in combination, are likely to have a significant effect on the interest feature of the site. If, on a precautionary basis, there is a risk that there may be a significant effect upon the international site then a further appropriate assessment may be required.

5.6 The site does not receive any statutory or non-statutory nature conservation designations such as SPA, SSSI, SAC or LNR.

5.7 The nearest section of the Thanet Coast and Sandwich Bay Ramsar Site is located approximately 2.1km north west of the site; whilst the nearest section of the Thanet Coast and Sandwich Bay SPA is located approximately 3.5km north-east of it, and the Sandwich Bay SAC is located approximately 3.7km to the north-east. The nearest section of the Ramsar site is connected to the site via an approximately 2.5km long network of roads and public footpaths. The remainder of the Ramsar Site, and the SPA and SAC are situated on the other side of the town of Deal, separated by a number of roads, but are accessible via a number of footpaths through the town. Habitats within the aforementioned SAC/SPA/Ramsar sites consist primarily of rocky shores, sand dunes, sand dune grassland, estuary, saltmarsh, and grazing marsh, none of which are present within the site.

5.8 The SPA classification of Thanet Coast and Sandwich Bay, is a result of the populations of little tern and golden plover, which are species of European importance, and populations of turnstone which is a migratory species of European importance. It is designated as a Ramsar Site due to the presence of 15 British Red Data Book wetland invertebrate species, and because it regularly supports an internationally important populations of turnstone. It qualifies as an SAC due to the presence of four Annex I dune habitats.

5.9 Dover to Kingsdown Cliffs SAC is located approximately 3km south-east of the site. It is designated for its vegetated sea cliffs, a habitat that is not present within the site. The town of Kingsdown is located between the SAC and the site, and connected via public footpaths.

5.10 Lydden and Temple Ewell Downs SAC is located approximately 9km south-west of the site, and is designated as an SAC due to the presence of the Annex I habitat - semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia (important orchid rich sites)).. The SAC is connected to the site by public footpaths and green corridors, but is

[22] Office of the Deputy Prime Minister (2005). *National Planning Policy Framework and Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System* HMSO

separated from it by two main roads (the A2 and the A256). The SAC is at risk from additional recreational pressure from trampling and direct fertilisation from dog fouling.

5.11 Due to the proximity of these European designated sites, a separate assessment of the likely significant effects on these sites have been undertaken, which can be found within the FPCR Test of Likely Significant Effects on European Sites (April 2019) (*Appendix C*). This document will help the LPA with their own Habitat Regulation Assessment for the site. In summary it is concluded that any significant effects on any of the designated sites will be mitigated for by a financial contribution to the North-east Kent European Sites Management Scheme.

Non-statutory Designated Sites

5.12 There are no non-statutory designated sites within 1km of the site.

Habitats

Grassland / Margins

5.13 Semi-improved grassland was limited to a very small area in the north-western corner of the site. It was of limited diversity and supported common and widespread species of little floristic interest and was therefore considered to be of low nature conservation value. The development proposals will result in the loss of these habitats.

5.14 A small stand of Montbretia, which is listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), was present on the eastern margin of the site. It is an offence to plant or otherwise allow this species to grow in the wild, and therefore it is recommended that the plant is destroyed *in situ* using an appropriate herbicide.

Arable

5.15 The arable field compartment dominated the site and due to the intensification of the management, such habitats were of negligible nature conservation value.

Fauna

Badgers

5.16 No badger setts were observed within the site, and no evidence of badger activity was recorded during the walkover survey. The grassland and arable field were considered to be of limited value for foraging badgers, if they are present in the wider area.

5.17 There are currently no statutory constraint to the development of the site.

Bats

5.18 Bat activity was recorded within the site during the transect and static bat detector surveys undertaken in 2017, with at least seven species/species groups recorded: common pipistrelle; soprano pipistrelle; brown long-eared; serotine; *Nyctalus* species; *Pipistrellus* species; and *Myotis* species.

5.19 Bat activity was considered to be low overall, and the species identified are common and widespread, with the assemblage typical of the rural location. The highest level of activity

recorded during the transect surveys was along the eastern boundary, backing onto residential gardens. However, the static positioned in this area only recorded 329 registrations during May, which is low numbers, and it is considered that this linear features is not a significant navigational or foraging route, as registrations would expected to be higher.

5.20 Overall, the levels of activity and assemblage of species indicate that the site is not likely to be of great significance for the local bat population, although the boundaries do provide a resource for a low number of bats. It is therefore considered that the proposed development of the site would not impact detrimentally on the Favourable Conservation Status (FCS) of bats locally, especially given that the majority of features of greatest interest, i.e. the margins, are to be retained and buffered from the built development.

5.21 Furthermore, the creation of additional green space, including proposed woodland planting, in the south-eastern corner and the addition of a sustainable drainage features, will improve connectivity and increase foraging habitats.

5.22 The retained margins around the site will be buffered from residential development, and their enhancement will be incorporated into landscaping proposals, which will keep connectivity to the wider landscape intact as dark corridors. Enhanced habitat connectivity will be achieved through the planting of tree belts, hedgerow and scrub and it is recommended that an appropriate lighting scheme is devised and implemented.

5.23 Some species of bats are more sensitive to light, are known to be deterred by artificial lighting and it can adversely influence invertebrate distribution and life cycles in turn affecting the availability of prey for bats. In order to avoid impacts associated with light spill on potential bat commuting flight-lines or foraging habitat, the following measures should be implemented:

- The strategic use of landscaping and planting to avoid light spill on sensitive habitats, such as boundary linear features;
- The avoidance of direct lighting of existing trees, and proposed areas of habitat and green corridor creation;
- Avoiding the use of mercury or metal halide lamps for street lighting as these are the most disruptive for bats and their prey;
- Installing short lighting columns wherever feasible, although in some locations taller columns may allow reduced horizontal spill; and
- Using lighting lux levels that are as low as guidelines permit and only used where required for public safety.

5.24 The above measures will minimise light spill onto potential commuting / foraging routes and minimise potential disturbance caused through the lighting of corridors. This mitigation would ensure that the overall impact caused by lighting the site is negligible.

Birds

5.25 A large number of bird records were returned by KMBRC. However, the majority of the species recorded would be unlikely to utilise the habitats within the site. A small number of urban edge and farmland species could potentially be impacted by the development. However, given the

site's small size and limited habitat availability, this is unlikely to have a significant adverse effect on local bird populations.

5.26 As all birds are protected whilst on the nest under the Wildlife and Countryside Act 1981 (as amended). It is recommended that site clearance works including the removal of any woody vegetation and ground flora during construction is conducted outside the bird breeding season (March – September, inclusive). If clearance is planned during bird breeding season then it will be preceded by a nesting bird survey conducted by an experienced ecologist. This will involve observing any vegetation to identify birds exhibiting nesting behaviour and/or searching for active nests. Should active nests be identified then an exclusion zone would need to be retained until the young have fledged as determined by the supervising ecologist.

Great Crested Newts

5.27 No records of GCN were returned in the desk study. The site provided very limited shelter for this species in the form of the grassland and arable field margins. No waterbodies were present either within the site boundary or within 250m of it, to provide suitable breeding habitat for GCN, It is therefore considered unlikely that this species would make use of the terrestrial habitats within the site; it has therefore been concluded that this species is not a constraint to the development.

Reptiles

5.28 The arable field margins supported a low population of both common lizard and slow worm, with only one adult recorded for each. Current site proposals show that some areas where reptiles were recorded are to be lost, including the northern margins and part of the western margin. However, other areas of the site are to be retained and enhanced with connections maintained to fields in the surrounding countryside.

5.29 Common lizards and slow-worms are partially protected under the Wildlife and Countryside Act 1981 (as amended) in that it is an offence to intentionally kill or injure the species. Therefore, precautionary measures will be undertaken during the site works to ensure that an offence is not committed, such as passive displacement. Retained and newly created habitats suitable for reptiles will be created around the peripheries and within the large areas of GI proposed to the west/south west and southern areas, this will include specific features such as hibernaculum and a cutting regime to ensure mosaic of habitats are created. The proposed habitat creation will benefit the small populations present on the site, whereby the increases in refuge, foraging and hibernation opportunities are likely to have a beneficial effect on the FCS of these species.

Mitigation and Enhancements

5.30 A proposed play area is to be located in the south west area of the development within an area of green space incorporating a community orchard and amenity grassland. This area will provide recreational space for dog walkers and other users, and is designed to be a focal point for recreation, reducing the need for residents to travel away from the development to designated sites. The position of the play area and dog walks in the south-west will reduce potential for residents to access designated sites to the north, north-east and south-east. Regular litter picks and the inclusion of waste bins around the development will aid in protecting the integrity of the development.

5.31 New habitat creation proposals will increase the diversity of habitats present and provide structural diversity, with woodland, scrub, informal and formal grassland areas, and an attenuation pond. New corridors of movement will be created via the planting of woodland, hedgerow and scrub lines. Any garden planting proposed at the outset will use native species of value to wildlife. Suitable small tree species for inclusion in garden planting schemes include field maple *Acer campestre*, silver birch *Betula pendula,* and holly. All informal areas of planting should use native species, where possible and be subject to sympathetic management to promote their conservation value. Planting schemes in both formal and informal areas should seek to create a varied three-dimensional structure through use of ground cover, climbers and shrubs with an emphasis on species bearing nectar, berries, fruit and nuts, as these enhance the foraging opportunities for local wild fauna including birds and invertebrates.

5.32 Roosting opportunities will be enhanced through the installation of bat boxes on retained trees or incorporated on to selected new buildings. These could include Ibstock bat bricks or Schwegler 1FR Bat Tubes which can easily be incorporated into the walls of the new buildings and Schwegler 1F and 2FN bat boxes for trees. The provision of such features would be in accordance with National and Local Planning Policy helping to enhance biodiversity within the local area.

5.33 Breeding opportunities for birds will be enhanced by inclusion of nest boxes or nest bricks around the development. The use of a number of different entrance holes, e.g. 26mm, 32mm and open-fronted will enable the scheme to encompass the nesting requirements for a range of species. Boxes should be placed on existing features within sheltered areas that are free of regular disturbance. Nest bricks may be incorporated into the fabric of proposed buildings in similarly sheltered locations.

5.34 The created habitats will incorporate a species-rich grassland mix, wild flower seed mixes or tall ruderal species, as these provide necessary foraging opportunities for seed specialists such as linnet and yellowhammer.

5.35 As small numbers of reptiles were recorded within the site boundary, it is recommended that areas around the margins of the residential area are enhanced for reptile use by creating and maintaining strips of informal tussock grassland to enhance commuting and foraging activity. Informal grassland areas should also be created in the communal green space. This would also provide a section of optimum habitat for reptiles to move into prior to works on site. The creation of dead wood piles in strategic locations on new or retained habitats would provide further opportunities for shelter and basking.

5.36 Given the low numbers of animals present on-site and the small amount of suitable habitat to be lost, it is recommended that where required, reptiles are displaced to adjacent areas of suitable habitat to ensure no reptiles are harmed during construction. All on-site areas of suitable vegetation should be directionally strimmed (passively displaced) towards the southern and western margins. This should take place in two stages, initially to a height of 200 mm and then, 1 to 2 hours later, to at least 100 mm, allowing any reptiles present to move out of the working areas and into the retained habitats.

5.37 All arisings should be removed and the area should be left for between 3 to 4 hours to further allow animals to move out of the working areas, before the area can be cleared as normal for

construction. Any piles of wood or rubble on-site should be hand-searched by an ecologist and dismantled with care and any reptiles found transported safely into the areas of retained habitat.

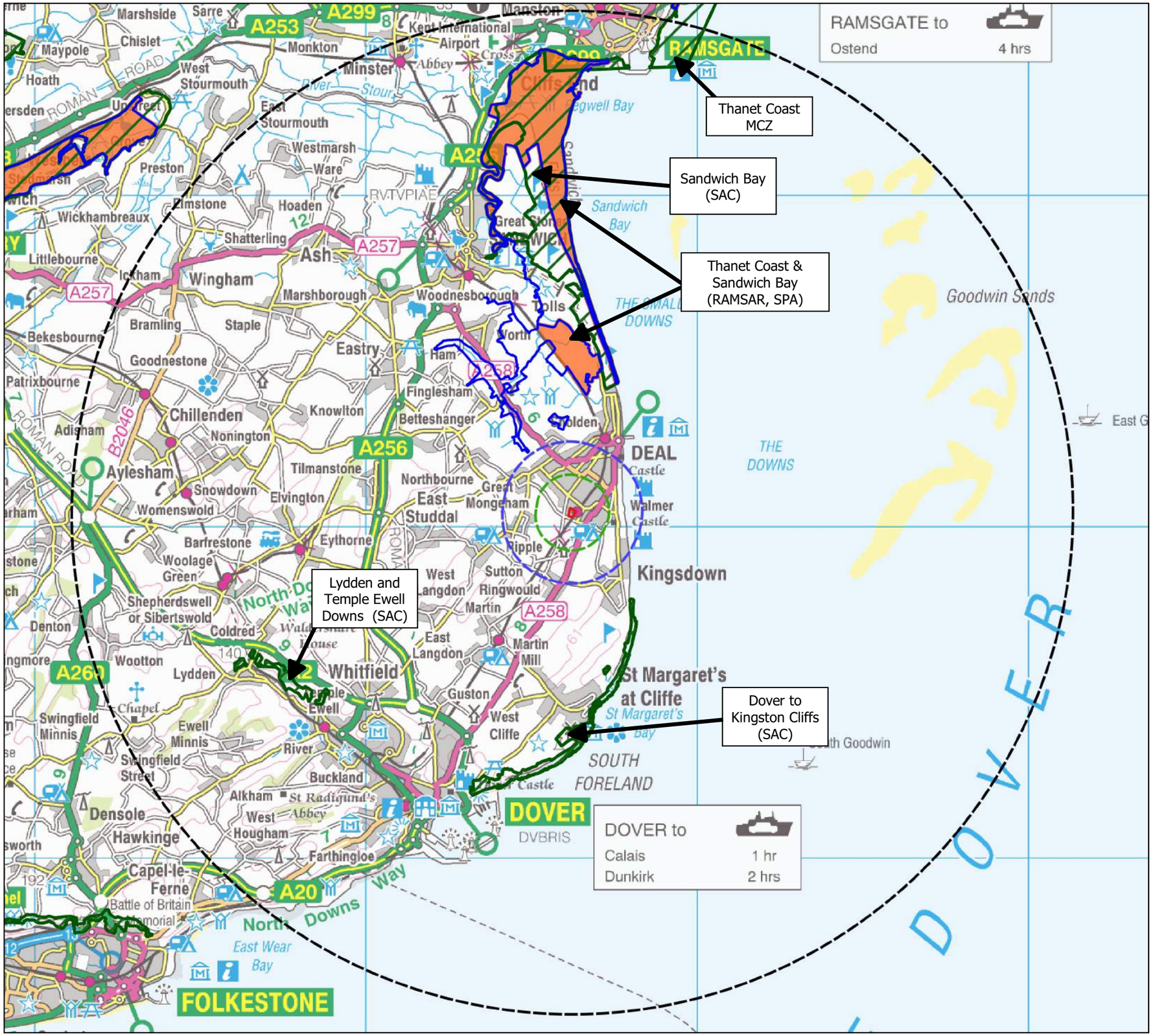
5.38 Dense patches of bramble or shrubs that provide suitable habitat for reptiles should first be cut to a height of 400mm and then cut 1-2 hours later to 50mm. Strimming should be in the direction that allows reptiles to move to suitable retained habitat. Cuttings should be removed from site to prevent the creation of suitable refugia.

5.39 All works should be undertaken under the supervision of an experienced ecologist. Works should be undertaken during the reptile active season and in suitable weather conditions (i.e. March/April to September inclusive, temperatures between 10°C – 18°C).

5.40 Dense bramble and scrub also provide suitable habitat for nesting birds, which are protected under the Wildlife and Countryside Act 1981 (as amended). Ideally therefore, vegetation removal work should be carried out after the bird breeding season or as early in the season as possible. Where this is not possible potential bird nesting habitat should be checked prior to removal during passive displacement by an experienced ecologist and if active nests are found, vegetation should be left untouched until all birds have fledged.

5.41 It is considered that the above enhancements will embody the principals of the NPPF by *"minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures",* and therefore the proposed development will provide increased opportunities for wildlife through the provision of a wider range of habitats than is currently present.

THIS PAGE IS INTENTIONALLY LEFT BLANK



Legend

- Site Boundary
- 1km Buffer
- 2km Buffer
- 15km Buffer

Designated sites

- RAMSAR Sites
- Special Area of Conservation (SAC)
- Special Protected Area (SPA)

FPCR Environment and Design Ltd, Lockington Hall, Lockington, Derby, DE74 2RH ■ t:01509 672 772 ■ f:01509 674 565 ■ e: mail@fpcr.co.uk ■ w: www.fpcr.co.uk
masterplanning ■ environmental assessment ■ landscape design ■ urban design ■ ecology ■ architecture ■ arboriculture

J:\7500\7572\QGIS 2.14\Plans\consultation plans\7572-E-Designated sites Plan.qgs

client
Gladman Developments Ltd

project
Cross Road,
Deal, Kent

drawing title
Site Location and Designated Sites Plan

scale 1:120000 | drawn RCO / KLB | issue 9/4/2019

drawing / figure number **Figure 1** | rev **7572-E-01**

THIS PAGE IS INTENTIONALLY LEFT BLANK

Key

- Site boundary
- 1 km Buffer
- Common Lizard
- Grass Snake
- Brown Long-Eared Bat
- Long-Eared Bat species
- Common Pipistrelle Bat
- Soprano Pipistrelle Bat
- Pipistrellus (45 or55kHz) species
- Serotine Bat
- Slow-worm

Gladman Development Ltd

Cross Road,
Deal

Consultation Results Plan (Species)

scale 1:9000 | drawn OMS | issue 9/4/2019

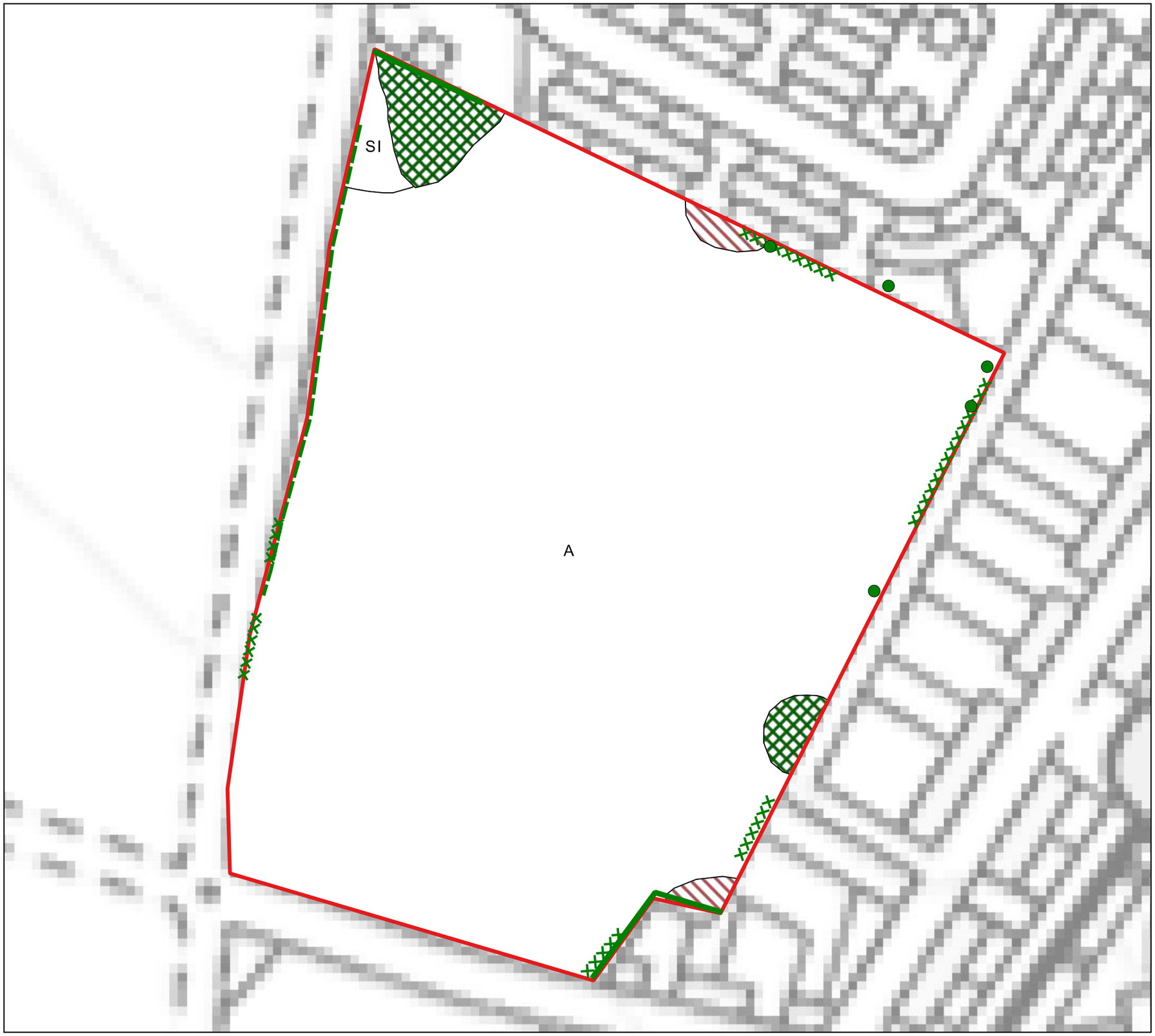
drawing / figure number **Figure 2** | rev **7572-E-02**

FPCR Environment and Design Ltd, Lockington Hall, Lockington, Derby, DE74 2RH ■ t:01509 672 772 ■ f:01509 674 565 ■ e: mail@fpcr.co.uk ■ w: www.fpcr.co.uk

masterplanning ■ environmental assessment ■ landscape design ■ urban design ■ ecology ■ architecture ■ arboriculture

B:\GIS Projects\7572 Deal 1 Cross Rd\QGIS 2.14\Plans\consultation plans\7572-E-01 Consultation Plan.qgs

THIS PAGE IS INTENTIONALLY LEFT BLANK



Key

- Site Boundary
- Scrub - dense/continuous
- Other tall herb and fern - ruderal
- SI Poor semi-improved grassland
- A Cultivated/disturbed land - arable
- Scrub - scattered line
- Intact hedge - species-poor
- Defunct hedge - species-poor
- Mature tree

FPCR Environment and Design Ltd, Lockington Hall, Lockington, Derby, DE74 2RH ■ t:01509 672 772 ■ f:01509 674 565 ■ e: mail@fpcr.co.uk ■ w: www.fpcr.co.uk
masterplanning ■ environmental assessment ■ landscape design ■ urban design ■ ecology ■ architecture ■ arboriculture

B:\GIS Projects\7572 Deal 1 Cross Rd\QGIS 2.14\Plans\Phase 1 plans\7572-E-02 Phase 1 Habitat Plan.qgis

client
Gladman Developments Ltd.

project
Cross Road, Deal
Kent

drawing title
PHASE 1 HABITAT PLAN

scale
1:1150

drawn
LG

issue
12/4/2019

drawing / figure number
Figure 3

rev
7572-E-03

THIS PAGE IS INTENTIONALLY LEFT BLANK

Gladman Developments Ltd

Cross Road, Deal, Kent

Notable Bird Species Recorded within the Search Area

Appendix A

April 2019

THIS PAGE IS INTENTIONALLY LEFT BLANK

Species	Date of most recent record	Status
Arctic skua *Stercorarius parasiticus*	2015	BoCC Red List, NERC
Avocet *Recurvirostra avosetta*	2002	Schedule 1, BoCC Amber List
Balearic shearwater *Puffinus mauretanicus*	2017	BoCC Red List, NERC
Bee-eater *Merops apiaster*	2015	Schedule 1
Bewick's swan *Cygnus columbianus*	2001	Schedule 1, BoCC Amber List, NERC
Bittern *Botaurus stellaris*	2004	Schedule 1, BoCC Red List, NERC
Black tern *Chlidonias niger*	2017	Schedule 1
Black redstart *Phoenicurus ochruros*	2016	Schedule 1, BoCC Red List
Black-tailed godwit *Limosa limosa*	2011	Schedule 1, BoCC Red List, NERC
Black-throated diver *Gavia arctica*	2016	Schedule 1, BoCC Amber List, NERC
Bluethroat *Luscinia svecica*	2010	Schedule 1
Brambling *Fringilla montifringilla*	2011	Schedule 1
Brent goose *Branta bernicla*	2016	BoCC Amber List, NERC
Bullfinch *Pyrrhula pyrrhula*	2016	BoCC Amber List, NERC
Cetti's warbler *Cettia cetti*	2016	Schedule 1
Common crossbill *Loxia curvirostra*	2012	Schedule 1
Common scoter *Melanitta nigra*	2016	Schedule 1, BoCC Red List, NERC
Corn bunting *Emberiza calandra*	2016	BoCC Red List, NERC
Cuckoo *Cuculus canorus*	2015	BoCC Red List, NERC
Curlew *Numenius arquata*	2016	BoCC Red List, NERC
Dartford warbler *Sylvia undata*	2002	Schedule 1, BoCC Amber List
Dunnock *Prunella modularis*	2015	BoCC Amber List, NERC
Fieldfare *Turdus pilaris*	2016	Schedule 1, BoCC Red List
Firecrest *Regulus ignicapillus*	2016	Schedule 1
Golden oriole *Oriolus oriolus*	2012	Schedule 1, BoCC Red List
Grasshopper warbler *Locustella naevia*	2003	BoCC Red List, NERC
Great northern diver *Gavia immer*	2016	Schedule 1, BoCC Amber List
Green sandpiper *Tringa ochropus*	2003	Schedule 1, BoCC Amber List
Greenshank *Tringa nebularia*	2004	BoCC Amber List, Schedule 1
Grey partridge *Perdix perdix*	2014	BoCC Red List, NERC

Species	Date of most recent record	Status
Grey wagtail *Motacilla cinerea*	2016	BoCC Red List
Hawfinch *Coccothraustes coccothraustes*	2009	BoCC Red List, NERC
Hen harrier *Circus cyaneus*	2003	Schedule 1, BoCC Red List, NERC
Herring gull *Larus argentatus*	2016	BoCC Red List, NERC
Hobby *Falco subbuteo*	2012	Schedule 1
Honey buzzard *Pernis apivorus*	2014	Schedule 1, BoCC Amber List
Hoopoe *Upapa epops*	2015	Schedule 1
House sparrow *Passer domesticus*	2016	BoCC Red List, NERC
Kittiwake *Rissa tridactyla*	2016	BoCC Red List
Lapland bunting *Calcarius lapponicus*	2013	Schedule 1, BoCC Amber List
Lapwing *Vanellus vanellus*	2012	BoCC Red List, NERC
Leach's petrel *Oceanodroma leucorhoa*	2000	Schedule 1, BoCC Amner list
Lesser redpoll *Carduelis cabaret*	2011	BoCC Red List, NERC
Lesser spotted woodpecker *Dendrocopus minor*	2010	BoCC Red List, NERC
Linnet *Carduelis cannabina*	2016	BoCC Red List, NERC
Little gull *Larus minutus*	2015	Schedule 1
Little ringed plover *Charadrius hiaticula*	1999	Schedule 1
Marsh harrier *Circus aeruginosus*	2003	Schedule 1, BoCC Amber List
Marsh tit *Poecile palustris*	2012	BoCC Red List, NERC
Mediterranean gull *Larus melanocephalus*	2016	Schedule 1, BoCC Amber List
Merlin *Falco columbarius*	2016	Schedule 1, BoCC Red List
Mistle thrush *Turdus viscivorus*	2016	BoCC Red List
Montagu's harrier *Circus pygargus*	1999	Schedule 1, BoCC Amber List
Nightingale *Luscinia megarhynchos*	2016	BoCC Red List
Nightjar *Caprimulgus europaeus*	2002	BoCC Amber List, NERC
Osprey *Pandion haliaetus*	2015	Schedule 1, BoCC Amber List
Peregrine falcon *Falco peregrinus*	2014	Schedule 1
Pied flycatcher *Ficedula hypoleuca*	2000	BoCC Red List
Pintail *Anas acuta*	2015	Schedule 1, BoCC Amber List
Pochard *Aythya farina*	2012	BoCC Red List

Species	Date of most recent record	Status
Puffin *Fratercula arctica*	2000	BoCC Red List
Purple sandpiper *Calidris maritima*	2002	Schedule 1, BoCC Amber List
Quail *Coturnix coturnix*	2014	Schedule 1, BoCC Amber List
Red kite *Milvus milvus*	2016	Schedule 1
Red-backed shrike *Lanius collurio*	2016	Schedule 1, BoCC Red List, NERC
Red-necked grebe *Podiceps grisegena*	1999	BoCC Red List
Red-throated diver *Gavia stellata*	2016	Schedule 1
Redwing *Turdus iliacus*	2013	Schedule 1, BoCC Red List
Reed bunting *Emberiza schoeniclus*	2013	BoCC Amber List, NERC
Ring ouzel *Turdus torquatus*	2016	BoCC Red List, NERC
Ringed plover *Charadrius hiaticula*	2014	BoCC Red List
Serin *Serinus serinus*	2016	Schedule 1
Shag *Phalacrocorax aristotelis*	2013	BoCC Red List
Shore lark *Eremophila alpestris*	2000	Schedule 1, BoCC Amber List
Skylark *Alauda arvensis*	2014	BoCC Red List, NERC
Slavonian grebe *Podiceps auritus*	2015	Schedule 1, BoCC Red List
Snow bunting *Plectrophenax nivalis*	2011	Schedule 1, BoCC Amber List
Song thrush *Turdus philomelos*	2016	BoCC Red List, NERC
Spoonbill *Platalea leucorodia*	2006	Schedule 1
Spotted flycatcher *Muscicapa striata*	2007	BoCC Red List, NERC
Starling *Sturnus vulgaris*	2016	BoCC Red List, NERC
Tree sparrow *Passer montanus*	2016	BoCC Red List, NERC
Turtle dove *Streptopelia turtur*	2016	BoCC Red List, NERC
Twite *Linaria flavirostris*	2016	BoCC Red List, NERC
Velvet scoter *Melanitta fusca*	2016	Schedule 1, BoCC Red List
Whimbrel *Numenius phaeopus*	2016	Schedule 1, BoCC Red List
Whinchat *Saxicola rubetra*	2016	BoCC Red List
White-fronted goose *Anser albifrons*	2016	BoCC Red List, NERC
Whooper swan *Cygnus cygnus*	2007	Schedule 1, BoCC Amber List
Wood sandpiper *Tringa glareola*	2014	Schedule 1, BoCC Amber List
Woodcock *Scolopax rusticola*	2012	BoCC Red List
Woodlark *Lullula arborea*	2008	Schedule 1, NERC

Species	Date of most recent record	Status
Wryneck *Jynx torquilla*	2014	Schedule 1, NERC
Yellow wagtail *Motacilla flava*	2011	BoCC Red List, NERC
Yellowhammer *Emberiza citrinella*	2016	BoCC Red List, NERC

Gladman Developments Ltd

Cross Road, Deal, Kent

APPENDIX B: BAT SURVEY REPORT

October 2017

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

Rev	Issue Status	Prepared / Date	Approved/Date
	Draft	ACE / 18.10.17	DTF / 25.10.17
	Final	KLB / 26.10.17	

CONTENTS

TABLES

FIGURES

APPENDICES

1.0 SUMMARY

1.1 A suite of bat surveys were undertaken on a site comprising two grassland compartments, arable field compartments and a block of immature woodland in Deal, Kent.

1.2 Ground based tree roost surveys were undertaken on the 11th November 2016 from which no trees were identified as having potential to support roosting bats.

1.3 Nocturnal activity surveys for bats were conducted within the site involving walked transects and automated static monitoring techniques. Surveys were conducted in May, July and September 2017 to cover the spring, summer and autumn activity periods, in line with published guidance and during suitable weather conditions.

1.4 Activity surveys indicated that it is predominately widespread and common bat species which utilise the site for foraging and commuting across the wider landscape, although only in low numbers and with generally low levels of activity overall. Common pipistrelle was the most frequently recorded species, followed by soprano pipistrelle with low levels of use by *Nyctalus* species*, Myotis* species, serotine, brown long-eared and Nathusius pipistrelle.

1.5 The transect surveys recorded the highest activity levels along the woodland edge on the western extent of the site and along the defunct hedgerow along Cross Road, though levels were unexceptional.

1.6 The survey results suggest low significance of the site for bats overall, and the features that are of greatest importance in the context of the site will be retained and buffered.

1.7 The provision of open space, retention and creation of woodland and hedgerows, along with the recommended sensitive lighting scheme and provision of bat boxes will provide for bats post-development. As such it is considered that the Favourable Conservation Status of the local bat population will not be negatively impacted.

2.0 INTRODUCTION

2.1 This report has been produced by FPCR Environment and Design Ltd for Gladman Developments Ltd and provides details of bat surveys undertaken at a site on land off Cross Road, Deal, Kent.

2.2 The approximately 12.61ha site, centred on grid reference TR 361 504, comprises two grassland compartments, arable fields and a block of immature woodland. The towns of Walmer and Deal lie to the east and north respectively witharable and pasture land located to the west and south. Cross Road bisects the study area, whilst Ellens Road, and Station Road form its southern boundary. Residential gardens and garages are located immediately adjacent to the northern and eastern boundaries, whilst horse pasture and industrial units are located to the west.

2.3 Surveys completed and presented include:

- Nocturnal bat activity transect surveys;
- Static bat recordings using SM2BAT+ devices;
- Ground visual assessments of the trees for bat roost potential.

2.4 The objective of the ground based tree surveys was to establish whether any bat roosts were present within any on-site trees that are likely to require removal or arboricultural works as part of the proposals.

2.5 Bat activity surveys were undertaken to assess the use of the site by bats and gather data on the species, abundance and utilisation of various areas and features. The survey involved two techniques; the use of walked transects and static monitoring. Activity surveys for bats were undertaken in May, July and September (i.e. assessing activity in the spring, summer and autumn periods) during 2017. The methodology and results of all bat surveys are provided in this report.

Proposed Development

2.6 The proposed development comprises up to 235 new dwellings with associated infrastructure and landscaping.

3.0 LEGISLATION

Bats

3.1 All bats and their roosts are afforded full legal protection under the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife & Countryside Act 1981 *(*as amended). The purpose of the legislation is to maintain and restore protected species to a situation where their populations are favourable.

3.2 Under Regulation 41 of the Conservation of Habitats and Species Regulations 2010 (*as amended*) it is illegal to deliberately capture, injure or kill; deliberately disturb (including intentionally or recklessly) all UK bat species. This includes disturbance which impairs their ability to: breed and rear young; migrate; and hibernate; or affects their local distribution and abundance. Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to:

- Recklessly or intentionally kill, injure or take any wild animals included in Schedule 5.

- Recklessly or intentionally damage or destroy, or obstruct access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection,
- Recklessly or intentionally disturb any such animal while it is occupying a structure or place which it uses for shelter or protection.

3.3 Foraging habitat and commuting routes used by bats are not protected as such, but impacts that could prevent bats from using a resource or commuting to or from a valued roosting site may be considered as an indirect impact on a roost or a significant disturbance effect and would therefore also need to be avoided or prevented.

3.4 Some British bats (soprano pipistrelle, brown long-eared, noctule, Bechstein's, greater horseshoe and lesser horseshoe) are listed as species of principal importance for the purpose of conserving biodiversity under the Natural Environment and Rural Communities (NERC) Act 2006. These are recognised in the National Planning Policy Framework which advises that when determining planning applications, Local Planning Authorities should aim to conserve and enhance biodiversity by applying a set of principles including:

If significant harm resulting from a development cannot be avoided……., adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

4.0 METHODOLOGY

Desk Study

4.1 To support the initial extended Phase 1 habitat survey of the site (November 2016) and further compile existing baseline information relevant to the site, ecological information was sought from third parties. This included records of protected or notable species from 1km from the site, including bats. Organisations contacted included Kent and Medway Biological Record Centre (KMBRC).

4.2 The Multi Agency Geographic Information for the Countryside (MAGIC) website[1] has been reviewed for the presence of any statutory designated sites for bats of international (Special Area of Conservation (SAC), national (Site of Special Scientific, (SSSI)) or local nature conservation importance (Local Nature Reserves (LNR)) within 5km of site.

Tree Roost Surveys

4.3 The tree assessments were undertaken from ground level on 11th November 2016, during the initial extended Phase 1 habitat survey by a suitably experienced ecologist from FPCR. During the survey Potential Roosting Features (PRF) for bats such as the following were sought (Based on P16, British Standard 8596:2015 Surveying for bats in trees and woodland, October 2015):

- Natural holes (e.g. knot holes) arising from naturally shed branches or branches previously pruned back to a branch collar.

[1] http://magic.defra.gov.uk/ [accessed 17.02.17]

- Man-made holes (e.g. cavities that have developed from flush cuts or cavities created by branches tearing out from parent stems.
- Woodpecker holes.
- Cracks/splits in stems or branches (horizontal and vertical)
- Partially detached, loose or bark plates.
- Cankers (caused by localised bark death) in which cavities have developed.
- Other hollows or cavities, including butt rots.
- Compression of forks with occluded bark, forming potential cavities.
- Crossing stems or branches with suitable roosting space between.
- Ivy stems with diameters in excess of 50mm with suitable roosting space behind (or where roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk).
- Bat or bird boxes.
- Other suitable places of rest or shelter.

4.4 Certain factors such as orientation of the feature, its height from the ground, the direct surroundings and its location in respect to other features may enhance or reduce the potential value.

4.5 Based on the above, trees were classified into general bat roost potential groups based on the presence of these features. Table 1 (below) broadly classifies the potential categories as accurately as possible as well as discussing the relevance of the features. This table is based upon Table 4.1 and Chapter 6 in Bat Surveys for Professional Ecologists: Good Practice Guidelines[2].

4.6 Although the British Standard 8596:2015 document groups trees with moderate and high potential, these have been separated below (as per Table 4.1 in The Bat Conservation Trust Guidelines) to allow more specific survey criteria to be applied.

[2] Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust

Table 1: Classification and Survey Requirements for Bats in Trees

Classification of Tree	**Description of** Category and Associated Features **(based on** Potential Roosting Features **listed above)**	**Likely Further Survey work / Actions**
Confirmed Roost	Evidence of roosting bats in the form of live / dead bats, droppings, urine staining, mammalian fur oil staining, etc.	A Natural England derogation licence application will be required if the tree or roost site is affected by the development or proposed arboricultural works. This will require a combination of aerial assessment by roped access bat workers **and** / **or** nocturnal survey during appropriate period (May to August) should be used to inform on the licence. Replacement roost sites commensurate with status of roost to be provided. Works to be undertaken under supervision in accordance with the approved good practice method statement provided within the licence. **However,** where confirmed roost site(s) are not affected by works, work under a precautionary good practice method statement may be possible.
High Potential	A tree with one or more Potential Roosting Features that are obviously suitable for larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter protection, conditions (height above ground level, light levels, etc) and surrounding habitat but unlikely to support a roost of high conservation status (i.e. larger roost, irrespective of wider conservation status). Examples include (but are not limited to); woodpecker holes, larger cavities, hollow trunks, hazard beams, etc.	A combination of aerial assessment by roped access bat workers **and** / **or** nocturnal survey during appropriate period (May to August). Following additional assessments, a tree may be upgraded or downgraded based on findings. After completion of survey work, a precautionary working method statement is likely to be required. If roost sites are confirmed a licence from Natural England will be required.

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

* The Conservation of Habitats & Species Regulations 2010 (as amended) affords protection to "breeding sites" and "resting places" of bats. The EU Commission's Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC, February 2007 states that these are places "where there is a reasonably high probability that the species concerned will return".

Nocturnal Activity Surveys

Transect Survey

4.7 The survey area and the site itself was considered to provide low value habitat for foraging and commuting bats and therefore three dusk transect surveys were undertaken at the site in 2017, one in May to assess bat activity in spring, one in July to assess bat activity in summer and one in September to cover the autumn season. The objective of the transect surveys was to identify foraging areas, commuting routes and to gain understanding of species utilisation of the site.

4.8 The transect routes were determined prior to survey in order to sample all areas of the site with those identified as having higher suitability being the main focus, as well as including point count stops to identify activity levels around these features of potential value to bats. Each point count was between 5 and 10 minutes long, during which time all bat activity was recorded. The point counts were strategically located throughout the site to ensure a comprehensive coverage of habitats present. Figures 1, 2 and 3 show the transect route and location of point count stops.

4.9 The dusk transects commenced at sunset, and continued for two to three hours.

4.10 The surveys were undertaken by appropriately experienced ecologists from FPCR. Each transect was walked at a steady pace using Wildlife Acoustics Inc. Echo Meter Touch® bat detectors in conjunction with Echo Meter Touch® app and Apple Inc. iPad® to provide back-up information and enable identification of bats encountered. When a bat passed by, the species, time noted and behaviour was recorded on a site plan. This information provides a general view of the bat activity present on site and identifies the key foraging areas and commuting routes.

4.11 The results of these surveys were used to assess the level of bat activity across the site in relation to the abundance of individual species foraging and commuting.

4.12 Transect surveys were undertaken during suitable conditions (i.e. when the ambient air temperature exceeded 10ºC and there was little wind and no rain) on 31st May, 13th July and 20th September 2017.

4.13 Post-survey, where necessary, bat calls were analysed using the AnalookW software package (Titley Electronics) and BatSound (version 4), by taking measurements of the peak frequency, inter-pulse interval, call duration and end frequency. This analysis was completed by a suitably experienced ecologist. From this, the level of bat activity across the site in relation to the abundance of individual species foraging and commuting along habitats was assessed.

Static Monitoring

4.14 Passive monitoring was undertaken using an automated logging system (Song Meter® SM4BAT FS, Wildlife Acoustics Inc) with its output saved to an internal storage device. This information was used to supplement transect survey data and derive an index of activity and species composition within the site. One SM4BAT FS device was positioned on the defunct hedgerow along Cross Road on the eastern half of the site during spring. One SM4BAT FS device was positioned along the northern boundary of the site which backs onto residential gardens during summer. One SM4BAT FS device was positioned on the woodland edge on the western extent of the site during autumn. The locations of the static detector surveys can be seen in Figure 4.

4.15 The SM4BAT FS static detectors are left within the site to record bat contacts for five consecutive nights in suitable weather conditions (little no rain/wind and temperatures above 10℃). The detectors was programmed to activate 30 minutes before dusk and recorded continuously until 30 minutes following sunrise. The output from this detector was subjected to computer analysis using the AnalookW software package (Titley Electronics). Analysis was undertaken by suitably experienced bat ecologists from FPCR. Static bat detectors were deployed within the site from 25st to 30th of May, 13th to 18th of July and 20th to 25th of September 2017.

4.16 The analysis of the SM4BAT FS files recorded can highlight the presence of more than one bat if they are recorded simultaneously on the same sound file. However, it is not possible to determine whether consecutive sound files have been recorded as the result of a single bat passing the detector as it commutes across the landscape or by one bat repeatedly triggering the detector as it forages in close proximately for an extended period. Therefore, each sound file is counted as a single bat registration. The number of bat registrations does however reflect the relative importance of the location of the detector by calculating the bat registrations per hour.

4.17 Table 2 below provides the survey timings for the bat activity surveys.

Table 2: Nocturnal Bat Survey Timings Summary

Date	Survey type
25th – 30th May 2017	Static survey (spring period)
31st May 2017	Transect (spring period)
13th July 2017	Transect (summer period)
13th – 18th July 2017	Static survey (summer period)
20th September 2017	Transect (autumn period)
20th to 25th September 2017	Static survey (autumn period)

Limitations

4.18 During the autumn static detector survey, the minimum overnight temperature dropped to 7°C for one of the recording nights. While these conditions are below optimum for bat surveying, they are representative for the time of year and would not therefore have significantly influenced bat activity.

4.19 Therefore, it is considered that the data collected is sufficient to inform the application and its potential impacts upon bats

5.0 RESULTS

Desk Study

5.1 KMBRC returned bat records from Kent Bat Group for locations within 5km of the study area. The only one of these within 1km of it was a *Myotis* species record from 2004 located approximately 900m north-west. The records did not indicate whether this was a bat roost record or individual bat sightings.

5.2 No statutory or non-statutory sites are present within 10km of the site for which bats are a primary designating feature.

Tree Assessment

5.3 None of the trees within or surrounding the study area had any features that would provide potential to support roosting bats.

Transect Surveys

5.4 The following is a summary of the nocturnal transect survey data. Full details of bat contacts are provided on the relevant figures. The transect route and locations of where bats were recorded are provided on Figures 1 to 3.

5.5 The first transect survey was conducted on 31st May 2017 during suitable weather conditions. During the survey a total of four contacts were recorded during the walked transect and two during the point counts. Common pipistrelle and soprano pipistrelle were the only species

recorded during the survey. Bat activity was recorded mainly along the southern boundary in association with the woodland and one contact was made along the defunct hedgerow on the eastern half of the site. The maximum number of bats recorded at any one time was two common pipistrelle.

5.6 The second transect survey was conducted on 13th July 2017 during suitable weather conditions. During the survey a total of contacts were recorded during the walked transect and seven during the point counts. Common pipistrelle was the most frequently recorded species, followed by soprano pipistrelle with singles passes of *Nyctalus* species and *Myotis* species recorded. Bat activity was recorded sporadically throughout the site, with the main activity in association with the woodland edge. The activity along the woodland edge was mainly of common and soprano pipistrelle foraging and commuting, with one *Myotis* pass. The eastern boundary of the section east of Cross Road recorded foraging activity of common pipistrelle and a pass of soprano pipistrelle. There was continuous foraging of common pipistrelle recorded along the woodland edge. The maximum number of bats recorded at any one time was two common pipistrelle.

5.7 The third transect survey was conducted on 20th September 2017 during suitable weather conditions. During the survey a total of six contacts were recorded during the walked transect and four during the point counts. Common pipistrelle was the main species recorded, with one soprano pipistrelle and one brown long-eared bat recorded during the survey. Bat activity was recorded in the north-west area of the site, along the defunct hedgerow on Cross Road with two contacts made on the eastern boundary of the site. The activity was mainly in association with the arable margins, hedgerow and scrub areas. The maximum number of bats recorded at any one time was one common pipistrelle.

Static Monitoring

5.8 A summary of the static monitoring data obtained across the survey seasons is provided in Table 3, with the full data provided in Appendix A. The locations of the static detector units is shown in Figure 4.

Spring (May 2017)

5.9 One SM4BAT FS bat detector was situated on the defunct hedgerow along Cross Road on the eastern half of the site, from 25th to 30th May 2017. The unit recorded a total of 329 bat registrations over the 46 hour survey period with common pipistrelle the most frequently recorded species. Soprano pipistrelle, brown long-eared, serotine*, Nyctalus* species, *Pipistrelle* species and *Myotis* species were also recorded.

Summer (July 2017)

5.10 One SM4BAT FS bat detector was positioned along the northern boundary of the site which backs onto residential gardens, from 13th to 18th July 2017. The unit recorded a total of 113 bat registrations over the 46 hour survey period with common pipistrelle the most frequently recorded species. Soprano pipistrelle, noctule, *Nyctalus* species, *Pipistrelle* species and *Myotis* species were also recorded.

Autumn (September 2017)

5.11 One SM4BAT FS bat detector was situated on the woodland edge on the western extent of the site from the 20th to 25th September 2017. The unit recorded a total of 65 bat registrations over the 70 hour survey period with common pipistrelle the most frequently recorded species. Soprano pipistrelle, Nathusius pipistrelle, noctule, *Nyctalus* species, *Pipistrelle* species and *Myotis* species were also recorded.

5.12 Table 3 provides a summary of all of the static bat detector survey results.

Table 3: Static Bat Detector Survey Results

Survey Period	Avg. registrations per hour	Total registrations	Most recorded species (number of registrations)	Other species recorded (number of registrations)
May 2017 (spring)	6.51	329	Common pipistrelle (308)	Soprano pipistrelle (11) *Pipistrelle* sp. (4) Brown long-eared (3) Serotine (1) *Myotis* sp. (1) *Nyctalus* sp. (1)
July 2017 (summer)	2.45	113	Common pipistrelle (73)	Soprano pipistrelle (32) *Nyctalus* sp. (4) *Pipistrelle* sp. (2) *Myotis* sp. (1) Noctule (1)
September 2017 (autumn)	0.86	60	Common pipistrelle (35)	Soprano pipistrelle (15) *Myotis* sp. (5) *Nyctalus* sp. (3) Noctule (1) Nathusius pipistrelle (1)

Static Monitoring Summary

5.13 Common pipistrelle bats accounted for the vast majority of bat activity within the survey area, comprising 82.3% of the total bat registrations recorded over the whole survey season. Relative usage of the site, as shown by percentage of all bat registrations recorded over the duration of the static monitoring period is shown in Table 4, overleaf.

Table 4: Breakdown of Species Recorded

Species	% of Total Bat Registrations
Common Pipistrelle	82.3
Soprano Pipistrelle	12.4
Nyctalus Species	1.7
Myotis Species	1.5
Pipistrelle Species	0.6
Noctule	0.4

Species	% of Total Bat Registrations
Brown long eared	0.6
Serotine	0.2
Nathusius pipistrelle	0.2

5.14 Considering the habitats present within and adjacent to the site, the recorded levels of activity are considered to be low with the vast majority of bat contacts recorded from species that are common and widespread within the local area.

Note

5.15 Where calls could not be identified to species level, for example due to the lower quality of those recordings or where there are similarities between species echolocation calls (particularly for *Myotis* and *Nyctalus* genus bats) making a definite identification difficult, a likely species identification is provided. This is based on the features displayed by the calls when analysed using the Analook data analysis software package and taking in to account the geographical location of the site and the habitats present. It was therefore considered that *Myotis* species bats were likely to be whiskered/Brandt's or Natterer's bats.

Notable Species Recorded

5.16 One notable species of bat, Nathusius pipistrelle, was recorded once during the static bat detector surveys in September 2017, with the SM4BAT FS detector located on the woodland edge.

6.0 DISCUSSION AND RECOMMENDATIONS

6.1 All bat species and their habitats are protected under the Wildlife and Countryside Act 1981 (*as amended*) and the Conservation of Habitats and Species Regulations 2010 (*as amended*). In summary these make it an offence to damage, destroy or obstruct any place used by bats for breeding and shelter, disturb a bat, or kill, injure or take a bat. The following sections take into account survey results to provide overall conclusions and recommended mitigation measures.

Roosts

6.2 A roost assessment was undertaken from the ground on the mature trees within the site on 11th November 2016 by a suitably experienced ecologist. During this survey no trees on site were recorded with any suitable bat roost feature.

Species Recorded

6.3 Bat activity was recorded within the site during the transect and static bat detector surveys with at least eight species/species groups recorded; common pipistrelle, soprano pipistrelle, Nathusius pipistrelle, serotine, noctule, *Nyctalus* species, brown long-eared, and *Myotis* species. Common pipistrelle were by far the most frequently recorded species recorded during the transect and static detector surveys followed by soprano pipistrelle. Noctule, Nathusius pipistrelle, brown long-eared, *Nyctalus species*, lbrown long-eared, and *Myotis* species were recorded occasionally.

6.4 Nathusius pipistrelle were recorded once during the September survey and may potentially relate to a migrating animal. Studies have suggested that Nathusius pipistrelle migrate to mainland Britain from continental Europe to avoid the harsh winter climate (Russ *et al.* 1998)[3] with individuals specifically entering Britain in autumn to the then return to the European continent the following spring (Russ *et al.* 2001)[4]. Due to the low number of registrations recorded during the static surveys coupled with the absence of the species from the transect surveys, suggests it is likely individual bats passing through the site on an occasionally basis rather than utilising the site as a core foraging or commuting resource.

6.5 Bat activity was considered to be low overall and the assemblage and level of use of the site unexceptional given the site's rural edge setting and the mixture of habitats present along the site boundaries. The highest level of activity recorded during the transect surveys was along the south western area of the site, in association with woodland edge. Activity was recorded in this area across two of the transect surveys.

6.6 The static detector surveys across all seasons recorded very little activity with the highest amount of bats recorded during the spring survey. A total of 329 bat registrations were recorded during this survey in association with the defunct hedgerow to the east of Cross road. During the summer activity levels were lower along the northern boundary, and during autumn these were lower still at the woodland edge. Activity levels were low and dominated by common pipistrelle.

6.7 Overall, the levels of activity and assemblage of species indicate that the site is not likely to be of great significance for the local bat population, although the boundaries do provide a resource for low number of bats. It is therefore considered that the proposed development of the site would therefore not impact detrimentally on the Favourable Conservation Status (FCS) of bats locally, especially given that the features of greatest interest are to be retained and buffered from the built development.

6.8 Furthermore, the creation of additional green links through the site will improve connectivity for bats and the sustainable drainage features may provide additional foraging opportunities. An attenuation pond and associated SUDS required as part of the drainage proposals create an opportunity to provide additional wetland features. The retained hedgerows and immature woodland should be buffered from residential development, and its enhancement should be incorporated into landscaping proposals, which will keep connectivity to the wider landscape intact. Enhanced habitat connectivity will be achieved through the planting of tree belts, hedgerow and scrub and it is recommended that an appropriate lighting scheme is devised and implemented.

6.9 Some more sensitive species of bat are known to be deterred by artificial lighting and it can adversely influence invertebrate distribution and life cycles in turn affecting the availability of prey for bats. In order to avoid impacts associated with light spill on potential roost locations, bat commuting flight-lines or foraging habitat, the following measures should be implemented:

- The strategic use of landscaping and planting to avoid light spill on sensitive habitats, such as hedgerows.

[3] Russ, J.M *et al.* (1998) Nathusius' pipistrelle bats (*Pipistrellus nathusii,* Keyserling & Blasius 1839) bredding in Ireland. Journal of Zoology, Vol. 245. Pp 345-349.
[4] Russ, J.M *et al.* (2001) The status of Nathusius' pipistrelle (*Pipistrellus nathusii* Keyserling & Blasius, 1839) in the British Isles. Journal of Zoology, Vol 254. Pp 91-100.

- The avoidance of direct lighting of existing trees, woodland and proposed areas of habitat and green corridor creation;
- The street lighting should avoid the use of mercury or metal halide lamps as these are the most disruptive for bats and their prey;
- Lighting columns should in general be as short as possible, although in some locations taller columns may allow reduced horizontal spill, and
- Lighting lux levels should be as low as guidelines permit and only used where required for public safety.

6.10 The above measures will minimise light spill onto potential commuting / foraging routes and minimise potential disturbance caused through the lighting of corridors. This mitigation would ensure that the overall impact caused by lighting the site is negligible.

6.11 To enhance the value of the site for bats and provide additional roosting features to complement the retained and created habitat and open space, it is recommended that nine bat boxes are installed on retained trees around the boundary of the site. A range of boxes could be installed to provide for a range of bat species such as pipistrelle and *Nyctalus species*. Boxes should be positioned at least 3m from the ground. Lighting of natural roosting features and bat boxes must be avoided.

6.12 Roosting opportunities for bats could be enhanced by the provision of bat bricks incorporated into the built fabric of residential dwellings. Bat bricks could be positioned on the southern, eastern and western elevations of buildings at least 4m from the ground. Bat bricks should be arranged around the development in different locations so that a number of different aspects are covered to provide a variety of alternative roost sites.

6.13 It is considered that with the implementation of the above recommendations the Favourable Conservation Status of bats in the local area will be enhanced through the provision of extensive green space and bat roosting provision replacing the currently poor foraging and commuting habitats currently present.

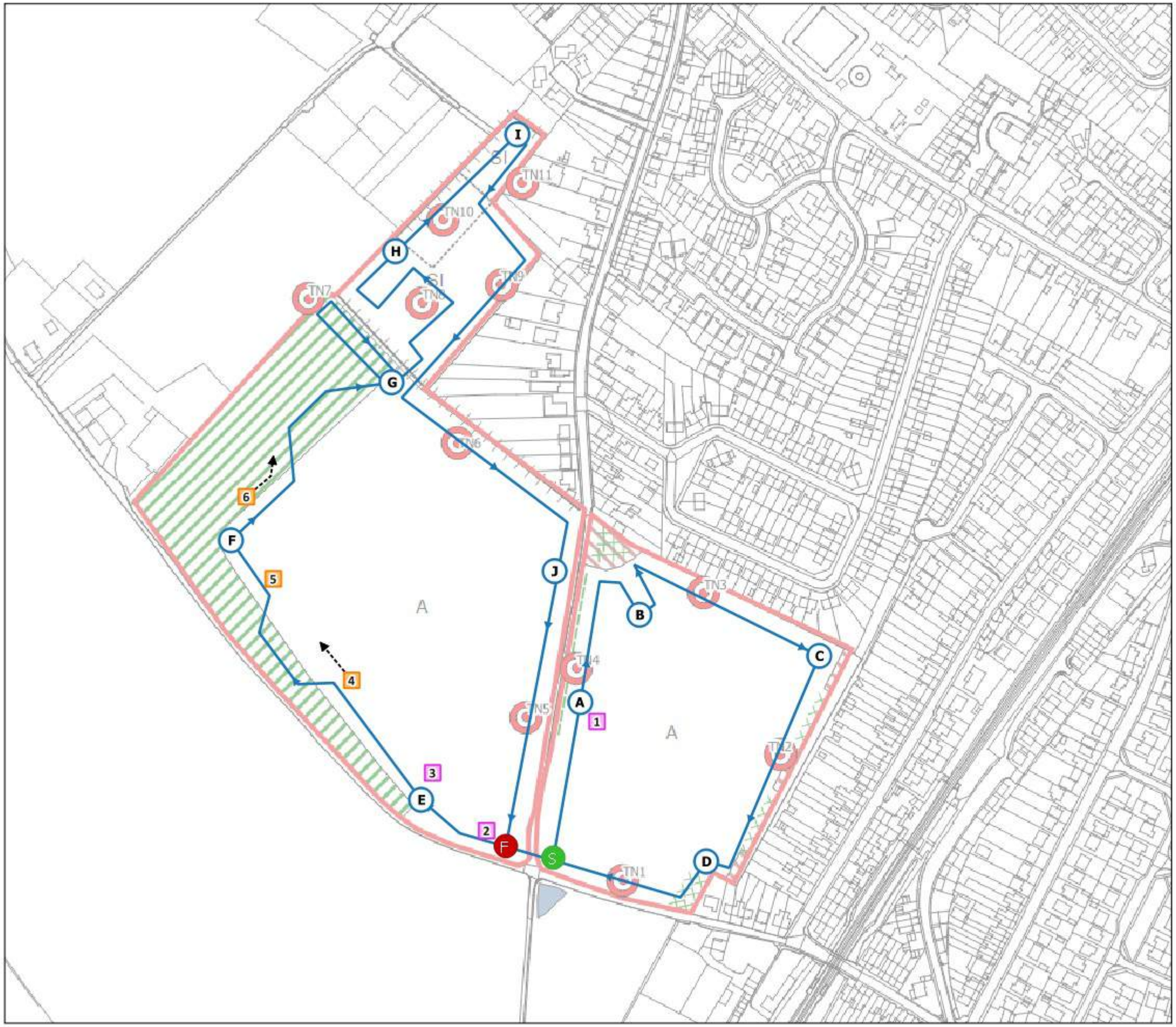
APPENDIX A: STATIC BAT DETECTOR DATA SUMMARY

Recording Period	Unit Number	Survey Dates	Survey Hours	Total Avg.per hour	Total Registrations	Common Pipistrelle			Soprano Pipistrelle			Nyctalus Species			Myotis Species			Brown Long-eared			Common / Soprano Pipistrelle			Noctule			Serotine			Nathusius' pipistrelle		
						Avg.per hour	Peak Count	Period Total	Avg.per hour	Peak Count	Period Total	Avg.per hour	Peak Count	Period Total	Avg.per hour	Peak Count	Period Total	Avg.per hour	Peak Count	Period Total	Avg.per hour	Peak Count	Period Total	Avg.per hour	Peak Count	Period Total	Avg.per hour	Peak Count	Period Total	Avg.per hour	Peak Count	Period Total
Spr	23	25/05/2017 - 30/05/2017	45	6.51	296	6.11	88	278	0.24	6	11	0.02	1	1	0.02	1	1	0.07	2	3	0.02		1	0.00	0	0	0.02	1	1	0.00	0	0
Sum	0	13/07/2017 - 18/07/2017	46	2.45	113	1.58	38	73	0.69	12	32	0.09	2	4	0.02	1	1	0.00	0	0	0.04		2	0.02	1	1	0.00	0	0	0.00	0	0
Aut	0	20/09/2017 - 25/09/2017	70	0.86	60	0.50	10	35	0.21	4	15	0.04	1	3	0.07	2	5	0.00	0	0	0.00		0	0.01	1	1	0.00	0	0	0.01	1	1
		Total	162	2.89	469	2.38	88	386	0.36	12	58	0.05	2	8	0.04	2	7	0.02	2	3	0.02	0	3	0.01	1	2	0.01	1	1	0.01	1	1

Please note the above refers to the number of bat registrations and not the number of individual bats.

Survey dates may appear one night short of those indicated elsewhere in the report as the table above gives the date that each overnight period started as opposed to the full survey period. E.g. where date is stated as 24/07/2017 this is the night of the 24th July including overnight into the early morning of 25th July.

APPENDIX B: TRANSECT SURVEY RESULTS



Key:

- Site Boundary
- Start point
- Finish point
- Point Count (with ref.)
- Transect Route
- Flight Path

Bat Contacts

- Common Pipistrelle
- Soprano Pipistrelle

Point Count	Contact Ref	Time	Species	Passes	Behaviour
	1	02:45	Soprano Pipistrelle	2	Pass
A		02:44 - 02:49			
B		02:52 - 02:57			
C		03:02 - 03:07			
D		03:13 - 03:18			
	2	03:19	Soprano Pipistrelle	1	Pass
E	See Ref 3	03:24 - 03:29			
	3	03:27	Soprano Pipistrelle	1	Pass
	4	03:32	Common Pipistrelle	Continuous	Forage
	5	03:38	Common Pipistrelle	2	Pass
F		03:41 - 03:46			
	6	03:48	Common Pipistrelle	1	Pass
G		03:59 - 04:04			
H		04:11 - 04:16			
I		04:20 - 04:25			
J		04:35 - 04:40			
Finish		04:46			

FPCR Environment and Design Ltd, Lockington Hall, Lockington, Derby, DE74 2RH ▪ t:01509 672 772 ▪ f:01509 674 565 ▪ e: mail@fpcr.co.uk ▪ w: www.fpcr.co.uk

masterplanning ▪ environmental assessment ▪ landscape design ▪ urban design ▪ ecology ▪ architecture ▪ arboriculture

0 25 50 75 100 m

Gladman Developments Ltd.

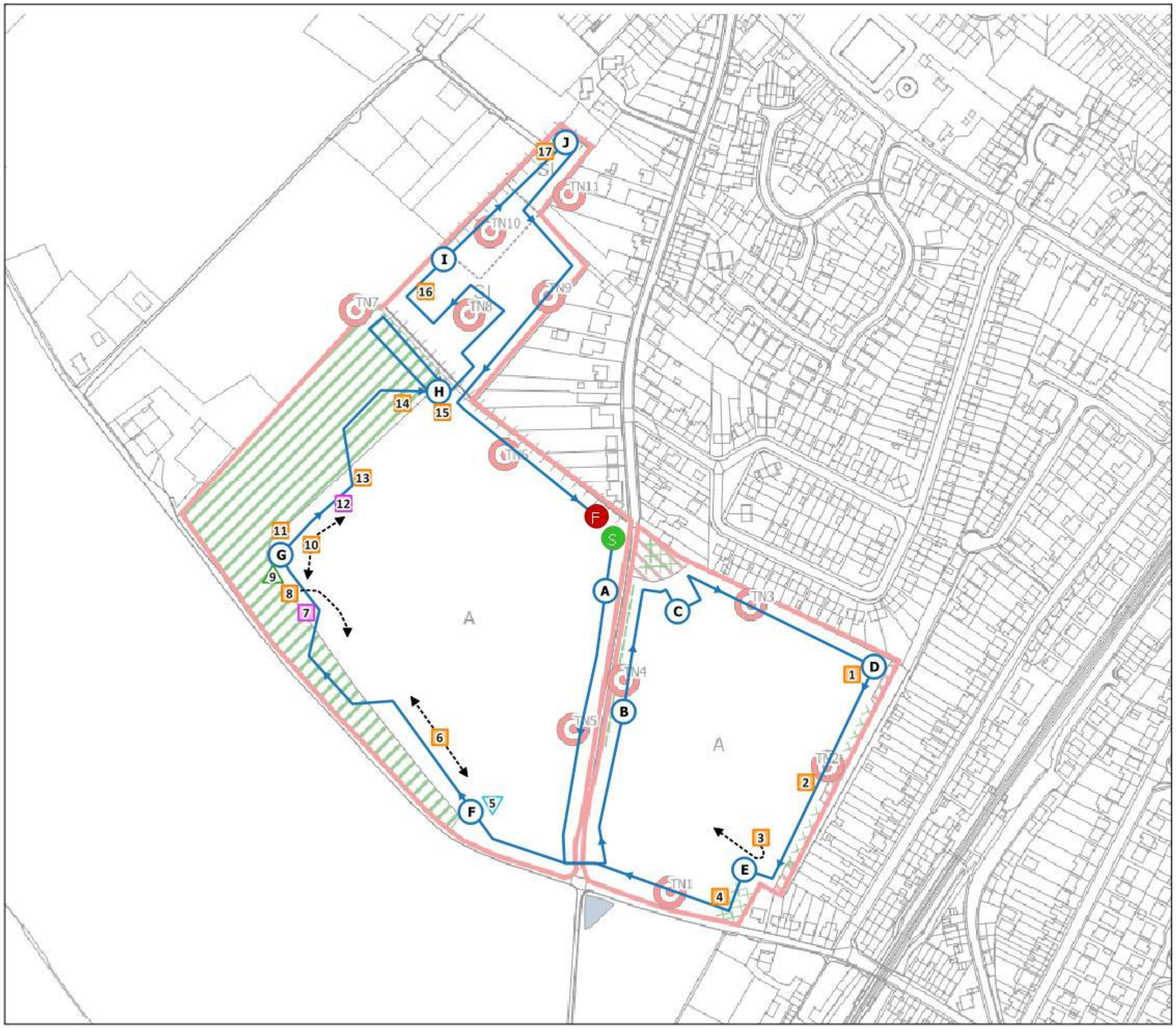
Cross Road,
Deal

BAT TRANSECT PLAN (31/05/17 Dawn)

scale @ A3: 1:2,800 | drawn: PJP | issue: 24/10/201.

drawing / figure number: Figure 1 | job: 7572-E-01

P:\XXXX\XXXX\QGIS\Plans\Bat Transects & Emergence\XXXX-E-XX Bat Transect Plan.qgs



Key:

- Flight Arrow
- Point Count Locations

Start & Finish Points

- Start point
- Finish point
- Site Boundary
- Transect Route

Bat Contacts

- Common Pipistrelle
- Soprano Pipistrelle
- Myotis Species
- Nyctalus Species

Point Count	Contact Ref	Time	Species	Passes	Behaviour
	1	21:05	Soprano Pipistrelle	2	Pass
A		21:06-21:11			
B		21:22-21:27			
C		21:33-21:38			
D	See Ref 1	21:45-21:50			
	1	21:45	Common Pipistrelle	1	Pass
	2	21:52	Common Pipistrelle	1	Pass
E	See Ref 3	21:53-21:58			
	3	21:56	Common Pipistrelle	4	Forage
	4	21:58	Common Pipistrelle	1	Pass
F	See Ref 5	22:01-22:06			
	5	22:05	Nyctalus Sp.	1	Pass
	6	02:08	Common Pipistrelle	Continuous	Forage
	7	22:11	Soprano Pipistrelle	1	Pass
	8	22:11	Common Pipistrelle	continuous	Forage
	9	22:12	Myotis Sp.	1	Pass
G	See Ref 10,11	22:13-22:18			
	10	22:13	Common Pipistrelle	Continuous	Forage
	11	22:16	Common Pipistrelle	Continuous	Forage
	12	22:21	Soprano Pipistrelle	1	Pass
	13	22:22	Common Pipistrelle	Continuous	Forage
	14	22:25	Common Pipistrelle	1	Pass
H	See Ref 15	22:27-22:32			
	15	22:28	Common Pipistrelle	1	Pass
	16	22:43	Common Pipistrelle	1	Pass
I		22:44-22:49			
J	See Ref 16	22:51-22:56			
	17	22:52	Common Pipistrelle	3	Pass
Finish		23:07			

Gladman Developments Ltd.

Cross Rd,
Deal

BAT TRANSECT PLAN (13/07/17)

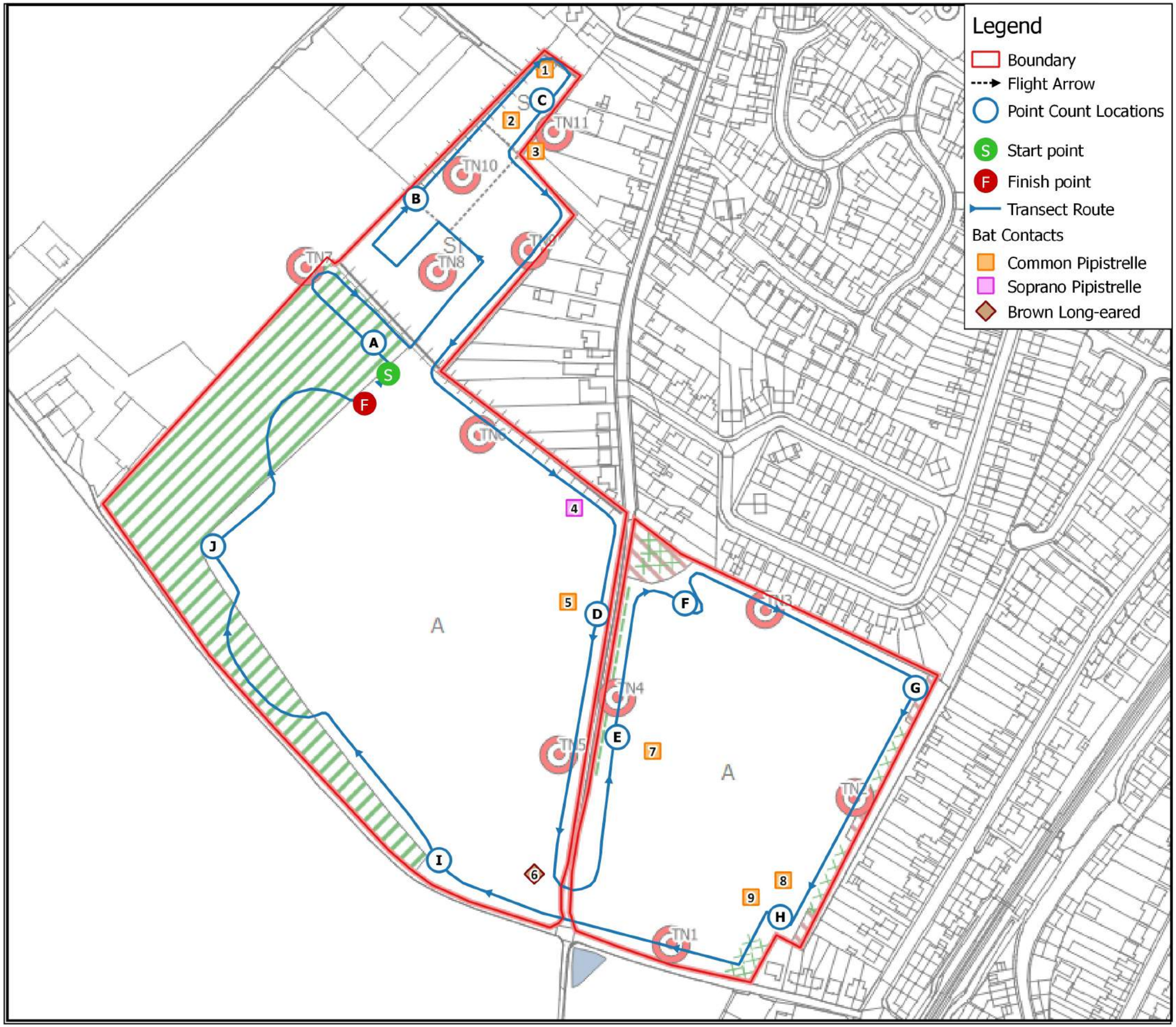
scale @ A3 1:2,800 | drawn PJP | issue 24/10/2017

drawing / figure number Figure 2 | job 7572-E-02

FPCR Environment and Design Ltd, Lockington Hall, Lockington, Derby, DE74 2RH ▪ t:01509 672 772 ▪ f:01509 674 565 ▪ e: mail@fpcr.co.uk ▪ w: www.fpcr.co.uk
masterplanning ▪ environmental assessment ▪ landscape design ▪ urban design ▪ ecology ▪ architecture ▪ arboriculture

0 25 50 75 100 m

P:\XXXX\XXXX\QGIS\Plans\Bat Transects & Emergence\XXXX-E-XX Bat Transect Plan.qgs



Date:	20.09.17	Start Time:	18:58	Temp (C):	15	Rain:	0
Sunset:	18:58	End Time:	21:04	Wind :	2	Cloud (%):	30

Point Count	Contact Reference	Time	Species	Passes	Behaviour
PCA		18:58-19:03	No Bats		
PCB		19:15-19:20			
	1	19:26	Common Pipiestrelle	1	P
PCC		19:27-19:32			
	2	19:28	Common Pipiestrelle	1	P
	3	19:33	Common Pipiestrelle	1	P
	4	19:43	Soprano Pipistrelle	1	P
PCD		19:47-19:52			
	5	19:52	Common Pipiestrelle	1	P
	6	20:01	Brown Long Eared	1	P
PCE		20:04-20:09			
	7	20:05	Common Pipiestrelle	1	P
PCF		20:13-20:18	No Bats		
PCG		20:23-20:28	No Bats		
PCH		20:34-20:39			
	8	20:37	Common Pipiestrelle	1	P
	9	20:39	Common Pipiestrelle	2	P
PCI		20:45-20:50	No Bats		
PCJ		20:57-21:02	No Bats		

FPCR Environment and Design Ltd, Lockington Hall, Lockington, Derby, DE74 2RH ■ t:01509 672 772 ■ f:01509 674 565 ■ e: mail@fpcr.co.uk ■ w: www.fpcr.co.uk
masterplanning ■ environmental assessment ■ landscape design ■ urban design ■ ecology ■ architecture ■ arboriculture

0 25 50 75 100 m

client
Gladman Developments Ltd

project
Cross Road,
Deal. Kent

drawing title
BAT TRANSECT PLAN (20.09.2017)

scale @ A3
1:2,400

drawn
BKN

issue
23/10/2017

drawing / figure number
Figure 3

rev
-

P:\XXXX\XXXX\QGIS\Plans\Bat Transects & Emergence\XXXX-E-XX Bat Transect Plan.qgs

Legend

- Site Boundary
- Static Bat Detector Location

client
Gladman Developments Ltd

project
Cross Road,
Deal, Kent

drawing title
Static Bat Detector Locations

scale 1:80,000 | drawn RCO / KLB | issue 24/10/2017

drawing / figure number **Figure 4** | rev **7572-E-04**

FPCR Environment and Design Ltd, Lockington Hall, Lockington, Derby, DE74 2RH ▪ t:01509 672 772 ▪ f:01509 674 565 ▪ e: mail@fpcr.co.uk ▪ w: www.fpcr.co.uk

masterplanning ▪ environmental assessment ▪ landscape design ▪ urban design ▪ ecology ▪ architecture ▪ arboriculture

P:\7500\7572\QGIS\Plans\7572-E-01 Designated sites Plan.qgs

Gladman Developments Ltd

Cross Road, Deal

Information for Habitat Regulation Assessment

Appendix C

May 2019

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

Rev	Issue Status	Prepared / Date	Approved/Date
-	Draft 1	KLB / 08.04.19	DAH / 16.04.19
	Final	KLB / 17.04.19	
A	Rev	DAH / 20.05.19	DAH / 23.05.19
	Final	KLB / 28.05.19	

CONTENTS

FIGURES

APPENDICES:

1.0 INTRODUCTION

1.1 The following assessment has been prepared by FPCR Environment and Design Ltd. on behalf of Gladman Developments Ltd. It provides information on the two stage Habitat Regulation Assessment, which includes screening for any likely significant effects (Stage 1) and test for adverse effects on the integrity (AEOI) (Stage 2) upon European Sites, in relation to a proposed residential development on land off Cross Road, Deal, Kent.

1.2 It assesses the potential impacts on the designated features of the following European sites:

- Thanet Coast and Sandwich Bay Ramsar Site – c. 2.1km north-west;
- Thanet Coast and Sandwich Bay SPA – c. 3.5km north-west;
- Dover to Kingsdown Cliffs SAC – c. 3km south-east;
- Sandwich Bay SAC – c.3.7km north-east; and
- Lydden & Temple Ewell Downs SAC – c. 9km to the south-west.

1.3 The 3.94ha site comprises one arable field with 3-5m wide field margins of rank grassland and scrub. Cross Road forms the site's western boundary, whilst Station Road forms its southern boundary. Residential gardens and garages are located immediately adjacent to the northern and eastern boundaries. The towns of Walmer and Deal lie to the east and north of the site respectively. Arable and pasture land are located to the west and south.

1.4 The proposals comprise up to 100 residential dwellings with associated green infrastructure (1.26ha) including recreational areas and play, with an attenuation pond. The detailed design and layout will be subject to future Reserved Matters Application updates; however, the general design principles are likely to remain as illustrated on the Development Framework (7572-L-03 Rev M).

1.5 For the purposes of this report, the Thanet Coast and Sandwich Bay Ramsar/SPA and the Sandwich Bay SAC are collectively referred to as 'Sandwich Bay'. It is accepted that each component does have a different classification criteria and area coverage, however for the evaluation of effects on European sites this collective evaluation is thought to be sufficient. Where specific evaluations are needed of each component, then this will be identified.

Purpose of this Document

1.6 This document assesses the potential for likely significant effects and AEOI on Sandwich Bay and the Dover to Kingsdown Cliffs SAC, which are located in proximity to the Proposed Development. The remaining designated site of Lydden & Temple Downs SAC has been addressed to some degree, however due to distances (9km) and accessibility, effects are not likely to be significant.

1.7 The main purpose of this document is to provide the competent authority, Dover District Council, with sufficient information to inform their assessment of the potential for an adverse effect on the integrity of the European designated sites in line with the tests under Regulation 63 of the Habitat & Species Regulation 2017 (the Habitat Regulations) (as amended), both alone and in combination with other plans / projects.

1.8 A previous Natural England Discretionary Advice Service (DAS) was provided in 2017 for a larger scheme (12.61ha and 220 dwellings), which incorporates the current Application Site. A new DAS request has been submitted, but a response has not been received to date.

2.0 LEGISLATION, SITE DESIGNATION, CONSERVATION OBJECTIVES AND LOCAL POLICY

The Habitat Directive and Habitat Regulations

2.1 Article 6 of the Habitats Directive requires that a member state takes appropriate steps to avoid deterioration of habitats and species, for which European sites are designated. Articles 6(3) and 6(4) require that a plan or project not directly connected with the management of a site, but likely to have a significant effect upon it, either individually or in combination with other projects, must be subject to an Appropriate Assessment (AA).

2.2 Once an AA has been completed the authority may agree to a project and conclude that there would not be an adverse effect on the integrity of the European Site. If there is a negative assessment, the project could proceed where it can be demonstrated that there are no satisfactory alternatives and that there are imperative reasons of over-riding public interest to why it should proceed. Where a project is to proceed on the basis of imperative reasons for over-riding public interest, compensatory measures must be put into place to ensure coherence of the European site network is protected.

2.3 The Conservation of Species and Habitats Regulations 2017 (as amended), referred to as the Habitat Regulations, transposes the Habitat Directive into National Law. The Habitat Regulations aim to protect a network of sites in the UK that have rare or important habitats or species. The competent authority has a duty to ensure that the activities they regulate, have no adverse effect on the integrity of the European site. Regulation 63 states:

"63(1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for a plan or project, which: -

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

(b) is not directly connected with or necessary for the management of the site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.

63(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies.

63(5) In the light of the conclusions of the assessment, and subject to regulation 64, the authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

63(6) In considering whether a plan or project will adversely affect the integrity of the site, the authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given."

2.4 Regulation 63 is a two-stage process, the first stage is to determine whether a plan or project is likely to have a significant effect on a European site (HRA); the second test (if required) is to determine whether the project will affect the integrity of the European site, normally referred to as an Appropriate Assessment (AA).

2.5 It is the responsibility for the competent authority to undertake the assessment, however, ecological consultants routinely supply as much information as possible to aid the authority in their assessments as part of the planning process, taking the form of a shadow HRA or similar document. These documents provide information when identifying any likely significant effects on European sites; however, these Screening/Stage 1 assessments have previously included mitigation measures proposed to ensure that there are no likely significant effects, which could include financial contributions towards Recreational Avoidance Mitigation Strategy (RAMS), the creation of Suitable Alternative Natural Greenspaces (SANGS), or other measures to avoid or limit detrimental effects on European sites.

2.6 The incorporation of mitigation measures during Stage 1 assessments, were considered to be acceptable following a long line of established cases including the Court's decision in Hart DC, R (on the application of) v Secretary of State for Communities and Local Government [2008] (Dilly Lane, 2008), paragraph 76 of which stated:

"…there is no legal requirement that a screening assessment…. must be carried out in the absence of mitigation measures that form part of the plan or project. On the contrary, the competent authority is required to consider whether the project as a whole including measures, if they are part of the project, is likely to have a significant effect on the SPA."

2.7 The People Over Wind decision however, conflicts with and overrules a long line of domestic case law, such that, in certain circumstances, measures intended to avoid or reduce the harmful effects of the project on the site may not now be taken into account at the Stage 1/Screening HRA stage.

2.8 Regardless of the People Over Wind judgement, the principle that 'features or characteristics' of a plan or project can be taken into account still remain when completing a Stage 1 Screening Assessment as these are not additional measures applied to mitigate potential 'likely significant effects'. Thus, inbuilt mitigation required as a planning requirement which is not intended to reduce potentially harmful effects such as onsite 'semi-natural green space' is not excluded from the screening process.

People Over Wind C-323/17 (12th April 2018)

2.9 Previous approaches for the presentation of shadow HRAs to assist competent authorities in assessing likely significant effects on European sites, have been reviewed. This ruling means that competent authorities cannot take into account any additional avoidance or reduction measures (integrated or otherwise), at the HRA screening stage 1, where the plan or project is likely to have an adverse effect on a European Site[2].

2.10 For future planning applications that fall within a Zone of Influence for European site/s, consideration would need to be made to determine whether proposed mitigation measures incorporated would be included if the European site were not present in the vicinity; if the answer is no then a Stage 2 Appropriate Assessment (AA) will be required.

[2] PINS Note 05/2018 Consideration of avoidance and reduction measures in HRA: People over Wind, Peter Sweetman v Coillte Teoranta. 9th May 2018.

Holohan Judgement (7th November 2018)

2.11 This judgement by the Court of Justice of the European Union (CJEU) imposes more requirements on the competent authority at the Appropriate Assessment stage, to provide details of habitat and species for which a European Site is not listed, but could impose effects on the conservation status of the site:

"…1. an 'appropriate assessment' must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site."

Conservation Status of European Site Interest

2.12 This section provides information on the reasons for designation of the SAC, Ramsar and SPA, which are summarised in *Table 1* below.

Table 1. European Designated Sites and Reasons for Designation	
Sandwich Bay	**Thanet Coast and Sandwich Bay Ramsar** General overview of the site as taken from the Ramsar Information Sheet[3] *A coastal site, consisting of a long stretch of rocky shore, adjoining areas of estuary, sand dune, maritime grassland, saltmarsh and grazing marsh. The wetland habitats support 15 British Red Data Book invertebrates, as well as a large number of nationally scarce species. The site attracts internationally important numbers of turnstone* Arenaria interpres*, and nationally important numbers of nationally important wintering populations of four wader species: ringed plover, golden plover, grey plover and sanderling, as well as Lapland bunting. The site is used by large numbers of migratory birds* *Ramsar criterion 2: Supports 15 British Red Data Book wetland invertebrates.* *Ramsar criterion 6: species / populations occurring at levels of international importance* Qualifying species / populations (as identified at designated): Peak counts in winter: • Ruddy turnstone *Arenaria interpres interpres:* 1007 individuals, representing an average of 1% of the population (5 year peak mean 1998/9- 2002/3)
	Thanet Coast and Sandwich Bay SPA[4] This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex II of Directive 92/43/EEC: During the breeding season the area regularly supports: • Little tern *Sterna albifrons* (Eastern Atlantic - breeding) 0.3% of the GB breeding population 5 year mean, 1992-1996 Over winter the area regularly supports: • Golden plover *Pluvialis apricaria* [North-western Europe - breeding] 0.2% of the GB population 5 year peak mean 1991/92-1995/96 The site also qualifies under Article 4.2 of the directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex II of Directive 92/43/EEC: Over winter the area regularly supports: • Turnstone *Arenaria interpres* (Western Palearctic - wintering) 1.4% of the population 5 year peak mean 1991/92-1995/96).

[3] Information Sheet on Ramsar Wetlands (RIS): Thanet Coast and Sandwich Bay http://jncc.defra.gov.uk/pdf/RIS/UK11070.pdf

[4] JNCC SPA Description http://jncc.defra.gov.uk/pdf/SPA/UK9012071.pdf

Table 1. European Designated Sites and Reasons for Designation	
	Sandwich Bay SAC[5] Annex I habitats that are a primary reason for selection of this site • 2110 Embryonic shifting dunes • 2120 Shifting dunes along the shoreline with Ammophila arenaria • 2130 Fixed coastal dunes with herbaceous vegetation • 2170 Dunes with *Salix repens* ssp. Argentea (Salicion arenariae) Annex I habitats present as a qualifying feature • 2190 Humid dune slacks
Dover to Kingsdown Cliffs SAC[6]	Annex I habitats that are a primary reason for selection of this site • 1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts Annex I habitats present as a qualifying feature • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco- Brometalia)
Lydden & Temple Ewell Downs SAC[7]	Annex I habitats that are a primary reason for selection of this site • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco- Brometalia)

[5] JNCC SAC Description http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013077
[6] JNCC SAC Description http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030330
[7] JNCC SAC Description http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0012834

3.0 STAGE 1: SCREENING ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS ON EUROPEAN DESIGNATED SITES IN RESPECT OF APPLICATION SITE PROPOSALS

3.1 This Application Site was part of a larger survey area (12.61ha), which was assessed in 2017; this subsequent Application Site only form a small proportion (32%) of the original survey area. Correspondence with Natural England were held in 2017 (*Appendix A*), for the proposed 220 dwelling development of this larger area, whereby clarification was sought for the effects on the European Designated sites within a 10km radius. Natural England's response concluded that there would potentially be an increase of recreational effects on the Thanet Coast and Sandwich Bay SPA/Ramsar in-combination with other developments in Dover.

3.2 The Application Site in terms of residential increases is less than those numbers commented on by Natural England for the original assessment (45%); however, the proximity of the Application Site to the European Designated Sites means that likely effects are likely, particularly from recreational due to the '*pull*' of coastal areas for residents.

Potential Impact Pathways Scoped Out

3.3 Due to the distance of the Proposed Development from the identified European Sites, a number of impact pathways can be scoped out of this assessment, these are as follows:

Construction Impacts

A) Dust Particle Release / Habitat Loss – All European Designations.

B) Loss of Supporting Habitat for SPA Species on Application Site

Operational Impacts

C) Cat Predation

D) Air Quality Effects (alone) – Dover to Kingston Cliffs (SAC), Thanet Coast & Sandwich Bay Ramsar SPA, Sandwich Bay SAC, and Lydden & Temple Ewell Downs SAC.

E) Air Quality Effects (in combination) - Dover to Kingston Cliffs (SAC), Thanet Coast & Sandwich Bay Ramsar SPA, Sandwich Bay SAC, and Lydden & Temple Ewell Downs SAC.

F) Drainage / Water quality – All European Designations

G) Recreational Effects (alone and in-combination) – Lydden and Temple Ewell Downs (SAC) and Dover to Kingsdown Cliffs SAC

Construction Impacts

A) Dust Particle / Direct Habitat Loss Effects

3.4 The Application Site is between 2.1km and 9km from the European Designated Sites, and any direct habitat loss will not take place. The indirect effects of dust particle release, has the potential to disrupt the biological functionality of floral species, particularly during dry conditions.

The distance which dust particles are likely to travel is between 350-400m[8][9], with effects greater the closer to the source of release; all European Sites within this assessment are outside of these zones of influences, and it can be concluded that there will be no significant effects from dust particle release during construction.

B) Loss of Supporting Habitats

3.5 A consultation request was undertaken for a 1km radius of the Application Site from Kent and Medway Biological Record Centre, for records of protected and notable species. These responses recorded no SPA designated species within the search area, and from this data and habitat available it was concluded that the Application Site is not used by SPA species.

3.6 The habitats within the site did consist of arable crops which can be utilised by such species as golden plover, although the foraging behaviour of this species would favour grassland areas which contain more foraging opportunities, as the grassland contain microclimates suitable for prey items such as earthworms, beetles and dipteran larvae; such prey items are less abundant in arable habitats. Such habitats do occur within the wider area, but particularly near the SPA.

3.7 The size of the site (3.94ha) would potentially limit its functionality as a foraging or roosting area. Golden plover are responsive to disturbance and during the surveys undertaken on site there were members of the public seen around the peripheries and when the arable crop was cut, there appeared to be a diagonally well trampled route across the centre of the field running form the north east to south west corner. Due to the relatively small size of the site, such pedestrian disturbances would limit the use by SPA species. The site is also on the urban edge of Upper Walmer and Mill Hill; it is directly boarded by Cross Road to the west and Station Road to the south, with existing residential dwellings to the north and east. Due to the urban expanse to the north and the separation from habitats that are known to support SPA species, the Proposed Development is not likely to fall within flight lines such species, thus limiting potential for supporting habitats to be present.

3.8 Based on the Application's habitats, size, positioning in context to the European Sites, the possibility of disturbance and the absence of SPA species recorded during consultations, it can be concluded that this site does not support SPA species. The loss of the habitats within the Application Site will not have a likely significant on the European Designated Site's bird assemblages.

Operational Impacts

C) Cat Predation

3.9 Natural England has raised concerns for new residential dwellings that fall within close proximity to designated sites where the main contingent are bird species, particularly ground nesting ones, and there sensitively to potential predation by domestic cats. During personal communications with Natural England (August 2018) in regards to cat predation at Chattenden Woods and Lodge Hill SSSI, a roaming distance was of 335m was used that follows research undertaken by Hanmer et al., (2017)[10]. Regardless of the distances stated in the various research, the European

[8] Guidance on the assessment of dust from demolition and construction (2014) Institute of Air Quality Management

[9] Guidance on the Assessment of Mineral Dust Impacts for Planning (2016). Institute of Air Quality Management

[10] Hugh J Hanmer, Rebecca L Thomas, Mark D E Fellowes; Urbanisation influences range size of the domestic cat (*Felis catus*): consequences for conservation, *Journal of Urban Ecology*, Volume 3, Issue 1, 1 January 2017, https://doi.org/10.1093/jue/jux014

Sites exceed this distance (2.1km and 9km away), which are clearly too far for cats to roam; therefore, cat predation can be ruled out as a possible impact.

D) Air Quality - Alone

3.10 In accordance with the Natural England's advisors note NE001[11], which was written with Highway England, it has been agreed that '*protected sites that fall within 200m of the edge of a road affected by a plan or project need to be considered further'*. The Dover to Kingston Cliffs (SAC), Thanet Coast & Sandwich Bay SPA, Sandwich Bat SAC all fall outside of this 200m radius from the Application Site, and potential access roads used by future residents. In accordance with this Natural England document, it can be concluded that there are no likely significant effects from air quality on these designated sites.

3.11 The A258 bisects through a very small section of the Thanet Coast & Sandwich Bay Ramsar, the habitats within 200m radius includes neutral grassland habitats which are also designated as Sandwich Bay to Hacklinge Marshes SSSI, which forms part of the Ramsar. The proposed neutral grassland potentially affected by development is equal to approximately 16.21ha which is approximately 0.74% of the total Ramsar coverage.

The Ramsar Natura 2000 Standard Data Form[12] has identified that the general site characteristic consists of 56% *'Tidal flats',* with the only reference to habitats likely to contain neutral grassland referred to as the 15% of *'seasonally flooded agricultural land'.* The condition of the SSSI units within 200m of the A258, vary from unfavourable to favourable recovery (units 43, 44, 45, 55, 56 and 57), with the major of the unfavourable status due to losses of diversity within the ditch systems, unfavourable management, limited water retention and species declining. There is no comment on the effect on air quality, and in the '*Operations Likely to Damage the Special Interest'* document for the SSSI, this also does not mention air quality issues.

3.12 A specific Air Quality assessment was scoped out by Wardell Armstrong and agreed by Brian Gibson (Senior Environmental Protection Officer). As there are no specific monitoring stations nearby, data has been used from Defra's 2015 Local Air Quality Management (LAQM)[13]. The conclusion in Table 1, shows that the mean air quality objective for both NO^2 and Pm^{10} is concentrations of 40ug/m^3; for background concentration are below:

W

Table 1: Background Air Pollutant Concentrations Obtained from the 2015-Based Defra Default Concentration Maps		
Proposed Development Site Coordinates	**2019 Pollutant Concentrations (µg/m^3)**	
	Nitrogen Dioxide (NO_2)	**Fine Particulate Matter (PM_{10})**
636219, 150449	9.42	13.96

[11] *Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitat Regulation*. June 2018. http://publications.naturalengland.org.uk/publication/4720542048845824

[12] JNCC Standard Data Form Thanet Coast and Sandwich http://jncc.defra.gov.uk/pdf/RIS/UK11070.pdf

[13] Department for Environment, Food and Rural Affairs, Local Air Quality Management webpages (http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html)

Wardell Armstrong concluded that:

"It is therefore considered not necessary to undertake a full air quality assessment at outline planning application stage."

This was agreed by Brian Gibson.

3.13 The road traffic assessment undertaken by Croft Transport Planning and Design, as predicted that 474 AADT will be created as a result of the Proposed Development; which based on Natural England's guidance[14], this falls below the 1000 AADT so a likely significant effect can be ruled out alone on all European Sites. Croft also extrapolated data that they have collected during their traffic assessment, to see what proportion will head northward from the Proposed Development, this was estimated to be approximately 305 AADT. This northern AADT does not mean that all these trips will go via Ramsar, as it is likely that a proportion will use other routes way from these areas; this could be considered to be a worse case scenario.

3.14 In is concluded that the Air Quality effects can be scoped out of any further assessment in stage 2.

E) Air Quality – In combination

3.15 As stated in the above section, air quality assessments were not undertaken after consulting with the LPA, and therefore an assessment of combination effect of other developments in the proximity of European Sites was not completed. The sites which have been included in the in-combination assessment are:

- 223 dwellings at land off Station Road (Policy LA14)
- 1400 dwellings Whitfield Urban Expansion

Station Road – 223 dwellings (Policy LA14)

3.16 This allocated site had an air quality assessment undertaken in 2014, where it stated that:

"Pollutant concentrations remain well below the objective values for both NO2 and PM10 with and without the proposed development at all receptors;"

3.17 The traffic assessment for this site, had not undertaken an assessment of the amount of traffic that passes any of the European Sites, or roads within 200m. The proximity of this site to Thanet Coast & Sandwich Bay Ramsar via the A258, means that this is the most likely site that could be affected by increases in traffic. The other European sites are scoped out due to distance, as above.

3.18 A review of the Traffic Assessment undertaken by Consulting Engineers Ltd (March 2014)[17], has calculated that from this development 77% of traffic will head east along Station Road, and, where the junction is met with Dover Road (A258), 48% of traffic will head south towards Dover (away from Ramsar), and 31% will head north into Deal. The destination of residents after that is unknown but it is likely that some will be heading into Deal, with a possible small proportion continuing through Deal and on to A258 to the Ramsar. This route would also be a convoluted

[14] Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulation. June 2018.

[17] Consulting Engineer Ltd. Land Adjacent to Station Road, Walmer Kent, Transport Assessment March 2014. https://publicaccess.dover.gov.uk/online-applications/files/E9882BA62EF98D651D35D9C75AA54CB6/pdf/14_00361-TRASNPORT_ASSESSMENT_PART_1-252438.pdf

way to access the A258 heading northward. It is therefore possible that residents from this development will head north-west along Ellens Road, this only accounts for 23% of the traffic from the site. This is assuming that all 23% then continue towards the A258 and the Ramsar, but alternative routes are possible.

3.19 The Core Strategy Submission Document Habitat Regulation Assessment[18] for the allocate sites had evaluated the effects of these developments on the European Sites, whereby there was no mention of any air quality effects relating to the Thanet Coast and Sandwich Bay Ramsar.

Whitfield Urban Expansion – 1400 dwellings

3.20 This development is situated on the northern edge of Whitfield, Dover which is approximately 6km south west from the Proposed Development at Cross Road; this site is adequately separated from those European Sites for which this assessment has been undertaken for the Application Site (see above). The potential for residents from this development at Whitfield to access parts of the Thanet Coast & Sandwich Bay Ramsar along the A258, are reduced as there is no reason for residents to access the A258. If residents are commuting northward the are likely to use the A256 or the Deal Road, which avoid this designated site.

3.21 The nearest European site to the Whitfield Expansion is Lyden & Temple Ewell Downs (SAC), within the Whitfield Urban Expansion Draft Masterplan document[19] it states that air quality model shows an increase of 1.3% in atmospheric nitrogen deposition from the A2, which will only affect a small part of the designation.

3.22 As mentioned above the Lyden & Temple Ewell Downs (SAC), has been scoped out from any potential effects from the Cross Road Proposed Development, therefore an in-combination effect can also be scoped out, due to no additional air quality additions.

Summary

3.23 It is concluded that the development on Station Road will contribute low numbers of additional traffic levels to the A258 which passes the Thanet Coast and Sandwich Bay Ramsar. The Cross Lane development alone will contribute approximately 305 AADT, if this figure is doubled for the Station Road development, this will still not increase beyond the 1000 AADT as recommended in the NE guidance. It is also possible the number will be reduced due to possible dilution of traffic into Deal and the surrounding area, before heading along the A258. Due to the low number of traffic increase likely, the in-combination effects on Thanet Coast and Sandwich Bay Ramsar are deemed to be not significant and no in-combination effect resulting, so no stage 2 assessment is required.

3.24 Whitfield Urban Expansion will affect European Sites which are outside of the Cross Road scope of assessment; as a result there are no significant in-combination effect predicted.

F) Drainage

3.25 No direct/indirect drainage pathways exist between Application Site and the European sites, and it can be concluded that potential increased runoff and pollution events would not have a likely significant effect on any European Designated Site.

[18] Dover District Council The Core Strategy Submission Document Habitat Regulation Assessment

[19] Dover District Council. Whitfield Urban Expansion Draft Masterplan. http://dover-consult.limehouse.co.uk/portal/whitfield_spd/whitfield_draft_spd?pointId=1285059956805#section-1285059956805

G) Recreational Effects – Alone and In-combination

Lydden & Temple Ewell Down SAC

3.26 The SAC is approximately 9km south west of the Application Site as the crow flies, but to access the nearest part of this SAC, would entail a 14.5km drive. Part of this makes up the Lydden Temple Ewell National Nature Reserve, which is managed by Kent Wildlife Trust (KWT). There is a car park located off London Road in Temple Ewell, where public rights of way run into the reserve. The site details are on the KWT website, states that dogs should be kept on a lead and that the paths are uneven, unsurfaced and narrow, with a number of stiles which means accessibility could be a limited factor for visitors.

3.27 The distance which new residents would need to travel to access this site, and the limited access once there, means that visits to this designation are unlikely to take place regularly. Furthermore, following the consultation exercise undertaken in 2017, Natural England said that the proposed (larger) development at Cross Road did not trigger an Impact Risk Zone (IRZ) for Lydden & Temple Ewell Downs SAC, thus there is no likely significant effect from the Proposed Development alone.

3.28 As there are no likely significant effect alone, an in-combination assessment is not required, therefore an AA is not required.

Dover to Kingsdown Cliffs SAC

3.29 The SAC is located approximately 3km south-east of the Application Site, as the crow flies; if new residents were to access the SAC on foot and utilise public rights of way (PRoW), so to avoid roads and residential areas, the PRoW runs via Mayes Road towards Hawkdown, Kingsdown and down Kingsdown Hill (south of Stag point) and then onto paths of the SAC, which is a total walk of 5.6km (one way). If residents were to use residential footpaths i.e. those that go through housing estate, the distance could be reduced to 3.8km (one way).

3.30 Research on the Thames Basin Heath SPA[20], found that 75% of the people surveyed covered up to 3.8km during visits from their homes; although the 'pull' of a coastal walk maybe greater than that of inland habitats such as a heathland's, however with the shortest distance on foot being 7.6km, would suggest these distances would not be covered regularly by residents. Furthermore, the Natura 2000 Data Form for the SAC[21] does not list recreation as a threat or pressure, and, in 2017, Natural England advised that no IRZ were triggered for the SAC as a result of the proposed Cross Road development.

3.31 The nearest car park is at Walmer & Kingsdown Golf Club, which is approximately a 6.2km drive from the Application Site. There are also car parks at the Dover Patrol War Memorial (8.4km) and within St Margarets Bay.

3.32 The DDLDF states that most parts of the SAC are owned by the National Trust as part of their 'White Cliffs of Dover' estate. The habitats within the SAC are monitored and managed, with the majority of the SSSI contingent all in favourable condition and where they are not, the units are unfavourable recovery due to scrub cover etc, rather than recreation. The DDLDF states that

[20] Natural England (2014) Results of the 2012/13 visitor survey on the Thames Basin Heaths Special Protection Area (SPA). [Online].

[21] JNCC Dover to Kingsdown Cliffs Natura 2000 Standard Data Form [online] http://jncc.defra.gov.uk/ProtectedSites/SACselection/n2kforms/UK0030330.pdf

"despite the high number of visitors the estate as a whole receives. The vegetated sea cliffs are generally dangerous to approach or physically inaccessible and are therefore inherently protected from recreational pressure."

3.33 It is concluded that no likely significant effect will result from increased footfall/recreation pressure from the Proposed Development the Dover to Kingsdown Cliffs SAC.

3.34 As a result of the above, an in-combination effect is also discounted.

Potential Impact Pathways Considered

3.35 The section below details the potential impacts and subsequent effects which may result from the Proposed Development on the nearby European Designated Sites alone and in-combination:

Operational Effects

H) Recreational Effects (alone)- Thanet Coast and Sandwich Bay SAC/SPA/Ramsar

I) Recreational Effects (in-combination) – Thanet Coast and Sandwich Bay SAC/SPA/Ramsar

Operational Impacts on Designated Sites

H) Recreational Effects (Alone)

3.36 The Habitats Regulations Assessment (HRA) of Dover District Council's Local Development Framework (LDF) Core Strategy[22] states that:

"There is currently an absence of accurate visitor information for specific European protected sites in the vicinity of Dover. The Kent Downs AONB is currently rated as having a 'high' level of visitors, but accurate figures are not known. However, if we take the England Day Visits[23] data (which was based on a phone poll with 23,500 respondents) as broadly 'typical' of the distances that residents of Dover District may travel to visit European sites, this means that all of those sites within these distances could be affected by trampling or (in the case of Special Protection Areas) disturbance of sensitive wildlife as a result of the population increase in Dover District from the new homes that is part of the Core Strategy."

3.37 The England Day visits are stated the below, however these are very generalist figures and are not necessarily reflective of the visiting numbers to European Designated Site within the Dover district. A number of assessments have been made on the visitor numbers and the radius which people travel for sites such as the Thames Basin Heath SPA and New Forest SAC, which are smaller distances than those quoted below. For example, a 5km radius draws around 96% of the visitors to the Thames Basin.

- 10.8 miles (17.2 km) to visit a countryside site for the day;
- 11.3 miles (18.1 km) to visit a woodland site for the day; and
- 16 miles (25.5 km) to visit a coastal site for the day.

[22] *Habitat Regulations Assessment of the Dover LDF Core Strategy*[online] https://www.dover.gov.uk/Planning/Planning-Policy-and-Regeneration/PDF/Habitat-Regulations-Assessment-Core-Strategy.pdf

[23] Various. 2006. England Leisure Visits: the Results of the 2005 Survey. Countryside Agency

Thanet Coast and Sandwich Bay SAC/SPA/Ramsar

Increased Recreational Pressure: Access on Foot

3.38 A visitor's surveys of 377 individuals was undertaken by Strategic Marketing for Dover District Council in 2012[24], which found that 81% of those surveyed regularly used Sandwich Bay to walk their dogs with distances of between 2 - 4.5 miles (3.2 to 7.2km) covered during a visit, with the majority letting dogs off the lead. 30% of the visitors were from Deal and 28% of Sandwich; and 82% visited by car, with the majority of the visits occurring in the summer.

The nearest section of the Sandwich Bay European Site is Thanet Coast & Sandwich Bay Ramsar Site which is approximately 2.1km to the north-west of the Application Site. Natural England concluded, in the 2017 consultation, that the development has "*the potential to lead to increased recreational pressure on Thanet Coast and Sandwich Bay SPA/Ramsar, in combination with other residential developments in Dover"* and the Core Strategy Submission Document Habitat Regulation Assessment has concluded that the large catchment area will result in increased recreational pressures to the Sandwich Bay area, resulting in impacts on dunes, marine habitats from water sports, nutrient enrichments through dog fouling and bird disturbance.

3.39 The Natura 2000 Standard Data Form for Sandwich Bay SAC [25] and Thanet Coast and Sandwich Bay SPA/Ramsar[26], state that outdoor sports and recreation are one of the threats to the SAC; however, there is still a desire to ensure that the public can access such areas, as in the Natura form this states that improved access has been created, which is a positive effect. If recreational activities were an issue then, access would be limited.

3.40 Access onto Station Road from the Application Site, will allow residents to move eastwards towards the coast, however access along Station Road is restricted only roadside edges, where there are no footpaths/pavements for approximately 80m, with a pavement starting just past Sydney Road and continues eastward. After 0.5km the road comes to the A258 which is a busy road running north to south; from here the pavement continues down Gram's Road, into St Clare Road towards Walmer Castle, where a path leads down to the England coastal path 'Wellington Parade', this will result in a 1.8km walk just to access the coastal path. To access Sandwich Bay from this location would entail a further 4.2km walk northward, resulting in a round trip of 8.4km; this exceeds the distance stated in the Strategic Marketing survey in 2012 that most people will walk. This also exceeds the distance quoted within the Natural England research for the Thames Basin Heath, although this is for an inland designation and the 'pull' of the coast may be greater. It is still unlikely that residents would walk over the 8.4km to access the European sites regularly.

Increased Recreational Pressure Access by Car

3.41 The assessment of the accessibility of Thanet Coast and Sandwich Bay SAC/SPA/Ramsar on foot regularly would suggest that if residents were likely to visit, then it is more than likely to be by car.

---

[24] Dover District Council Visitor Survey – Pegwell Bay and Sandwich Bay. Strategic Marketing (April 2012) https://www.dover.gov.uk/Planning/Planning-Policy-and-Regeneration/PDF/Dover-Visitor-Survey-Pegwell-Bay-and-Sandwich-Bay-2012.pdf

[25] Natura 2000 Standard Data Form Sandwich Bay http://jncc.defra.gov.uk/protectedsites/sacselection/n2kforms/UK0013077.pdf Accessed 15.04.19

[26] Natura 2000 Standard Data Form Thanet Coast and Sandwich Bay SPA/ Ramsar http://jncc.defra.gov.uk/pdf/SPA/UK9012071.pdf Accessed 15.04.19

3.42 The nearest car park to the Proposed Development is that at Walmer seafront and Kingsdown, which are approximately 3.5km east. From these car parks there is access to dedicated walks including Wellington Parade and the Promenade which have local amenities such as toilets and shops and dedicated flat surfaced walks, which could favour regular walks; access from these walks allow residents onto the shingle beaches. This path stretches northward past the Promenade Pier, and runs into the southern sections of Thanet Coast & Sandwich Bay Ramsar/SPA, which is a distance of 3.7km, which slightly shorter than the research undertaken for the average distance walked for the Thames Basin Heath (3.8km). This distance falls within the research undertaken for the Sandwich Bay, where people were recorded to walk between 3.2 to 7.2km.

3.43 Additional 'official' public car parks are present within Sandwich Bay along Princes Drive near Princes Golf Club, which is approximately 11.5km from the Application Site, this provides direct access onto the sand dunes. The sand dunes form part of the SSSI unit 13, where the habitat is classified as littoral sediment, which is in a Favourable state. Research concludes that at certain times it is undoubted that birds will be disturbed in this area, but the impacts are not considered severely detrimental as the bird assemblages prefer the mud flats on the nearby unit (12). As unit 12 is north past the car park, and is also littoral sediment habitat, disturbance is reduced with less regular visits and the birds utilise the mudflats which are harder for the public to access. Units 25 and 26 run between Princes Drive and the aforementioned littoral sediment habitats; these habitats are classified as supralittoral sediment areas which consist of dune grassland and shingle beaches, which were considered to be in Favourable Condition, and represent a good characteristic of such a habitat with the species and structure. Although units 25 and 26 are near the public car park, there are no comments on the disturbance caused to this habitat type from recreation.

3.44 The second area which provides an 'official' car park is Pegwell Bay Country Park which occurs 16.7km away from the Application Site, between Ramsgate and Great Sonar, this has toilets, play areas, bird hides and a mobile catering van. This areas falls within the Pegwell Bay SSSI Unit 3, the Wildlife Trust have identified that recreational activities such as dog walking, bait digging and kite surfing are having a detrimental impact on the bird populations, with the majority of the disturbance occurring to the north where dogs are released off leads causing disturbance to bird assemblages; this is being addressed by a dog management strategy, where alternative areas of off lead dog exercise areas will be provided.

3.45 It is accepted that new residents might utilise road parking, such as that a long Beach Street, The Marina and Sandown Road, which do have some dedicated parking bays. These provide access to the a PRoW that heads north into Thanet Coast & Sandwich Ramsar/SPA and Sandwich Bay to Hacklinge Marshes SSSI unit 13 and 22. Unit 13 does have additional visitors due to the being southernmost coastal part of the SSSI/Ramsar/SPA; however in the classification it does state, *"The impact on bird populations as a whole is not considered severely detrimental".*

3.46 Research undertaken by Blackwood Bayne Ltd for Thanet Distinct Council Strategic Access Management and Monitoring Plan (2016)[27] had used questionnaires from Dover DC, whereby there were two data sets for 2011 and 2012, which collectively found that 75% of all visitors to the Pegwell Bay had come from between 11.7km and 15.2km away. Kent County Council have also

[27] Thanet Distinct Council Strategic Access Management and Monitoring Plan: In respect of the Thanet section of the Thanet Coast and Sandwich Bay SPA. April 2016. Blackwood Bayne Ltd for Thanet Distinct Council. Accessed https://www.thanet.gov.uk/wp-content/uploads/2018/03/Thanet-DC-SAMM-MAIN-REPORT-Final-21st-April-2016.pdf

undertaken surveys in 2012, which concluded that 75% of visitors to Pegwell Bay Country Park originated from 7.6km away. All this research would suggest that residents from the Application Site are unlikely to access such areas as they exceed these recommended distances (16.7km).

3.47 In line with Core Strategy Policy DM31 (Open Space and Outdoor Recreation Policies), the Proposed Development will create 1.26ha of GI which exceeds the 2ha per 1000 suggested in the strategy; whereby 100 dwellings x average occupancy (2.27[28]) = 227 residents, which will require 0.44ha. The GI will also incorporate a circular route which will provide recreational space for dog walkers, including off lead opportunities and other features such as play areas.

3.48 The provision of GI in the Proposed Development is likely to reduce the frequency with which residents will visit the Thanet Coast and Sandwich Bay, but the 'pull' of such coastal areas cannot rule out no visits at all. The research above would suggest that the likelihood of residents from the Application Site visiting the northern stretches of Thanet Coast and Sandwich Bay, such as parts of Pegwell Bay, are unlikely to occur regularly due the distance. The southern sections of the designations are more accessible and this is reflected in the SSSI conditions in these places.

3.49 The combination of onsite GI and the distance which people would have to walk or drive to access more sensitive areas of the designation, would limit the potential frequency which such areas are used; however it cannot be said with certainty that new residents are not going to visit parts of the Thanet Coast and Sandwich Bay SAC/SPA/Ramsar. Due to this uncertainly of number of visits, a further assessment will be required in Stage 2.

Recreational Effect - In-combination Effects

3.50 The two-development evaluated for the in-combination effect are:

- Station Road – 223 dwellings
- Whitfield Urban Expansion – 1400 dwellings

Station Road – 223 Dwellings

3.51 This site is situated in close proximity to the Cross Road Proposed Development, and will consist of 223 dwellings. As the above assessment concluded for the Proposed Development alone, it cannot be ruled out that residents from this development will not frequent the European Sites, despite there being areas of GI available. As a result, further assessment will be required in Stage 2.

Whitfield Urban Expansion – 1400 Dwellings

3.52 As mentioned within the Air Quality assessment above, this proposed development is situated 6km south west of the Cross Road Proposed Development and nearer the Lydden & Temple Ewell Downs SAC; therefore, most recreation effects are likely to occur to that SAC, rather than those European Designated such as Thanet Coast & Sandwich Bay Ramsar/SPA. The Whitfield Urban Expansion Draft Masterplan has highlighted the potential recreational effects on the SAC. It is also possible the residents will visit the other European sites, particularly those that are nearer the coast areas.

[28] Census 2011 summary. Dover District Council. https://www.dover.gov.uk/Corporate-Information/Facts-and-Figures/Census-and-Statistics/PDF/Census-2011-River-ward.pdf

3.53 The in-combination effect of recreational visits to European Site, cannot be scoped out as the draw of coastal areas even from a distance, has been proven by questionnaires and surveys undertaken. The recreational effects from these sites on European Sites will require further assessment in Stage 2.

4.0 MITIGATION AND AVOIDANCE MEASURES – STAGE 2: APPROPRIATE ASSESSMENT: TEST FOR ADVERSE EFFECTS ON INTEGRITY (AEOI)

4.1 The screening stage has concluded that the proposed development could have a likely significant effect on the following European designated sites:

- Thanet Coast & Sandwich Bay SPA/Ramsar – Recreational Effects – Alone and in combination

4.2 Dover District Council implemented a Green Infrastructure Policy that sits alongside the Thanet Coast and Sandwich Bay SPA and Ramsar Mitigation Strategy. The Green Infrastructure Strategy[29] states: *"Where necessary, identification of specific mitigation measures must be undertaken and incorporated into proposals. Mitigation options for developments have been identified as:*

- *Deflection of Impact: The provision of Suitable Alternative Natural Greenspace (SANGS) has been developed by Natural England in response to recreational pressures on the Thames Basin Heaths SPA. It has been demonstrated through development in Dover (Whitfield Urban Expansion) that the SANGS approach is feasible, albeit that the nature of the alternative greenspace must be appropriate for the circumstances.*
- *Management of Sites: Good management has been shown to reduce recreational pressures on nature reserves. This may require funding for monitoring over an extended period to evaluate impacts and wardening. It is particularly important for sites where the provision of SANGS cannot be achieved. This approach has been agreed as a way forward for the Thanet Coast and Sandwich Bay SPA and Ramsar sites.*
- *Behaviour Change: Reducing a reliance on the private car and the promotion of healthier lifestyles means that recreational impacts on more remote sites are likely to be reduced and the use of green space close to the town (within walking distance or close to bus routes) is likely to increase. This trend can be encouraged by policy, information and the provision of suitable local GI. This approach is being taken forward through seeking better connections to, and the promotion of, the existing public rights of way system, householder information leaflets on new development sites, as well as the establishment of local GI/Landscape master plans.*

4.3 With respect to the international sites of Sandwich Bay (SPA, SAC, and Ramsar Site), the HRA concludes that the main impacts will be due to recreational pressure, urbanisation, impacts on water quality and water resources, and coastal squeeze. The Thanet Coast SPA Mitigation Strategy comprises four elements:

- Draw on funding (via a bond) to support wardening at Sandwich Bay for a period of 10 years;
- Monitoring of potential impacts associated with Dover development;
- Contribution to the Pegwell Bay and Sandwich Bay Disturbance Study; and
- To use the monitoring to identify lesser sources of development-related disturbance and to draw on the relevant developer's contributions for mitigation of such.

4.4 The development contribution is calculated per house, with the amount varying with respect to bedroom number. For outline applications where the detail of the dwelling type has not been established, an amount of £49.59 per dwelling is used (the same as for a three-bedroom house).

[29] Dover District Council *Green Infrastructure Strategy* January 2014

4.5 Natural England confirmed during the 2017 consultation that the development has "*the potential to lead to increased recreational pressure on Thanet Coast and Sandwich Bay SPA/Ramsar, in combination with other residential developments in Dover"* but their view is *"that if a financial contribution to this strategy is made, then this would address recreational pressure from the developments, and a likely significant effect could be ruled out."*

4.6 As mentioned above, in line with local planning policy GI on-site will include a children's play facility and a circular route which will provide space for dog walkers and other users, this will reduce the need for residents to travel away from the development to designated areas. As mentioned in this assessment, dogs off the lead are one of the main activities which disturb birds within the SPA; therefore by providing on site GI this allows residents an area for regular walks, but particularly early morning and late evening toilet works before and after work.

4.7 The onsite GI and financial contributions towards management, will ensure that there is no likely significant effect. This contribution will be secured via Section 106 legal agreement.

In-combination

Recreational Effects

4.8 The residual effects of this Application Site alone on the European Sites, after the inherent GI provisions, house buyers packs and the financial contributions, have ruled out any likely significant effect on the European designations.

4.9 The measures incorporated on the Application Site are policy lead (DM31), and therefore those allocated sites and any other development taking place within the area will have to be compliant with these policies. This means that all developments will have to meet the requirements within the Thanet Coast and Sandwich Bay SPA and Ramsar Mitigation Strategy. This means that each site will have to ensure that there are sufficient on and off-site measures, to ensure the integrity of the European sites are not compromised. As a result, the cumulative effects after these mitigation measures are implemented, means there will be no likely significant effect on the Thanet Coast and Sandwich Bay SPA/Ramsar.

5.0 CONCLUSION

5.1 Policy led measures have ensured that the Application Site alone and in-combination with other developments within the Dover District, does not have a likely significant effect on the nearby European Designated Sites from recreational disturbance, through the incorporation of on-site areas of green space. The continued maintenance of the European Sites is also mitigated for by a developer contribution, which is proportional to the house sizes.

5.2 It is considered that the inclusion of a recreational area within the proposed development will limit the requirement for residents to travel to the designated sites, for frequen.

5.3 Information contained within this document has considered the impacts of the Application Site on the European Designated Sites and measures have been adopted to ensure integrity of these are not compromised, through the provision of additional green space, house buyers packs and financial contributions for management. It is therefore concluded that the measures adopted would **not lead to a Likely Significant Effect on the integrity of the SPA, SAC and Ramsar sites identified**, when the Application is considered alone or in combination with other plans or projects.

APPENDIX A: NATURAL ENGLAND DAS RESPONSE TO FPCR'S ENQUIRY (2017)

Mon 06/02/2017 10:50

Giacomelli, Alison (NE) <Alison.Giacomelli@naturalengland.org.uk>

RE: Developments within 10km of SPA , SAC & Ramsar Sites, nr Deal

To Karen L. Bartlett

You forwarded this message on 07/02/2017 16:16.

Dear Karen,

Thanks for your enquiry regarding two developments near Deal.

I have checked which SSSI Impact Risk Zones the two developments fall within, as a starting point for potential impacts.

Both sites have the potential to lead to increased recreational pressure on Thanet Coast and Sandwich Bay SPA/Ramsar, in combination with other residential developments in Dover. Dover DC has a monitoring and mitigation strategy in place: https://www.dover.gov.uk/Planning/Planning-Policy/PDF/Evidence-Base-2013/EvidenceBaseSD/SD45ThanetCoastSPAMitigationStrategy.pdf. Natural England's view is that if a financial contribution to this strategy is made, then this would address recreational pressure from the developments, and a likely significant effect could be ruled out.

The proposal for 220 dwellings falls within the impact risk zone for Sandwich Bay to Hacklinge Marshes SSSI in terms of water quality impacts. But if there is no hydrological connection between the development site and the SSSI, then potential for impact can be ruled out.

If the proposals are for residential development only, then no IRZs are triggered for Sandwich Bay SAC, Dover to Kingsdown Cliffs SAC or Lydden & Temple Ewell Downs SAC. However, Dover to Kingsdown Cliffs and Lydden & Temple Ewell Downs are susceptible to air quality impacts, so could be impacted if the proposals include any sources of air pollution.

Though you didn't ask about landscape impacts, I would check whether there would be impacts on views from the Kent Downs AONB.

You asked about costs through our Discretionary Advice Service. Information can be found at https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals However, if the proposals are simply for residential development, then there's not an awful lot more to say than what I've outlined above, so it may not be worth your while. I'm happy to chat through on the telephone what the options might be. I'm around today and tomorrow if you'd like to give me a call.

Regards,
Alison

Alison Giacomelli
Lead Adviser – Sustainable Development
Sussex & Kent Area Team

Natural England
Guildbourne House
Chatsworth Road
Worthing
BN11 1LD

Tel: 0208 22 57693
Mobile: 07810 501187

www.gov.uk/natural-england

We are here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.